THE MADRAS
Christian College Magazine

Quarterly Series, Vol. III.

JULY 1923

The Madras University Act

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The Act to provide for the reorganisation of the Madras University (Madras Act No. VII of 1923) has a special interest for educators in general, and for readers of this Magazine in particular. While the number of Indian universities has greatly increased within the last ten years the tendency of late has been to create universities of the unitary type. The reconstituted University of Madras will not be of this type; it will be a university consisting of and expressing itself through constituent colleges which, while contributing to the life and development of the University, retain their individual character and that amount of autonomy which imparts stability without exciting friction. This constitution, then, marks a distinct stage in the evolution of Indian universities and claims the attention of all who have at heart the advance of higher education in this land. So far for the general consideration; among considerations which give to readers of this Magazine a special interest in this Act are the facts that the Minister who originated the Bill and piloted it safely through the Legislative Council is one of our alumni, that of the twenty-three members who constituted the Select Committee appointed to deal with the Bill eleven were graduates of our College and two members of its staff, that our College has a new responsibility laid upon it by its position as a constituent college of the reorganised University, and that in the Principal of our College the University has found its first Vice-Chancellor.

The Bill which passed through the Legislative Council of the Governor of Madras on the afternoon of Monday the 5th February 1923 was the natural outcome of much that preceded. For some time past there has been a growing feeling that the University as at present constituted is becoming unwieldy. The publication of the report of the Calcutta University Commission has given emphasis to this feeling; no one in South India would like to

see Madras University suffer from the evil effects of overgrowth which have befallen Calcutta University. Along with this has gone the quickening power of local patriotism which has seen a possible outlet for enthusiasm in the establishment of local universities. And combined with these is a genuine desire for a closer connection between the universities and the general life of the community. As ways in which these tendencies and desires have found expression may be mentioned the discussions of the Legislative Council regarding an Andhra University in 1917 and 1921, leading to the appointment of a committee which has recently published its report; the establishment of the University of Mysore in 1916, and the incorporation of the Osmania University in 1917; the appointment by the Government of H. H. the Maharajah of Travancore of a committee to consider the creation of a Travancore University; and the careful and lengthy consideration given to the Calcutta University Commission's Report by the Senate of the University of Madras. It is obvious that opinion is active, and that what has been done in the Legislative Council has been prepared for during a course of several years. Consideration of all the matters enumerated would take us too far afield. We must content ourselves by quoting three relevant resolutions passed by the Senate of the University of Madras. The first of these was passed at the Senate meeting of October 15, 1920, and runs as follows: 'The Senate is of opinion that the time has come when the increasing demands for liberal education in this Presidency should be met by the establishment of more universities and by the redistribution of the territorial areas of the existing University so as to provide, as far as practicable, at least one university for each principal linguistic area within the presidency, and that the establishment of a university for the Andhras should be taken in hand without further delay.' The second of these was adopted at the meeting held on March 5, 1921 and is in the following terms:—'That by a system of co-operation between the colleges and between the colleges and the university the teaching resources which exist in the city of Madras be organised in such a way as to create a real teaching university.' The third passed at the same meeting, is: 'That the affiliating functions of the university in regard to mufassal colleges be regarded as subsidiary and as of a more or less temporary order, and that a mode of organisation be adopted for the mufassal colleges which will encourage the gradual rise of new university centres by the concentration of resources for higher teaching and research at a few points.' The new legislation really turns upon these three resolutions. The Act for the reorganisation of the University of Madras is an act which (1) provides for the beginning of the establishment of local universities, (2) by concentrating the resources of the University in the city of Madras through the co-operation of the colleges in and around the city, while (3) permitting the University to maintain, as a temporary measure and until local universities are established, its affiliating functions, and (4) encouraging in every way the development of colleges in appropriate university centres outside the city of

Madras. The close connection between the provision of the Act and the resolutions of the Senate is at once obvious.

But it may be asked why, if the Senate advanced matters so far by its own decisions, it was necessary for a bill to be passed through the legislature. The answer to that is twofold. In the first place, if new universities were to be established, legislation was necessary, and if the affiliating powers of the new universities were to be relegated to a place of secondary importance, circumstances were bound to arise which could only be met by statutory enactments. Further, in addition to the resolutions already quoted, the Senate had decided in favour of a new constitution for the Universities and effect could be given to this only by an alteration of the Indian University Act of 1904. The changes contemplated, therefore, required an appeal to the legislature. But there was an even more cogent reason. The consideration of these matters began in the Senate in the year 1919, and before decisions could be reached in 1921 education had become a transferred subject and had passed under the control of a popularly elected body. It was fitting then that the positions adopted by an academic Senate at the beginning of 1921 should receive statutory authority at the hands of a popular Legislative Council at the beginning of 1923. In this way there is a drawing together of the two greatest powers in the country—good government and good education.

The first question which the framer of the Bill had to face was: What type shall the reorganised university follow? The Calcutta University Commission undoubtedly stimulated thought throughout India by proposing the institution of a teaching university in Calcutta, a unitary university at Dacca, and what is practically equivalent to an affiliating university in Bengal. The unitary University has been established in Dacca, and that is the type which has been adopted in the case of certain of the newer universities. In a university of this type we read, as in the Dacca Act, of halls and hostels but not of colleges. The University, not any college, is responsible for providing all qualifying instruction; 'all recognised teaching in connection with the University courses shall be conducted by the University.' The university is all in all, instead of colleges are halls or hostels where 'tutorial instruction' may be given, but such instruction is supplementary. There are not a number of colleges, for the unitary university is practically one magnified college.

Of the affiliating type of university little requires to be said. We are familiar with it as the only form of higher academic organisation that till quite recently existed in the country. There is a tendency now to decry this form as if education had been the loser by its introduction. But those who do this shut their eyes to facts. The affiliating university was the only kind that was possible in 1857 and for practically half a century following. There were neither the financial resources nor the academic resources adequate to a number of local universities. Further, the affiliating universities drew into the educational system the efforts of bodies and individuals

which while serving a community or locality helped on also the wider interests of education. And then, whatever may have been the defects of this type, there must always be set against these defects this fact that the result of the affiliating method has been to establish throughout India a large number of well equipped and well staffed colleges in which real education is imparted, colleges with distinct individuality and tradition. Theoretical objections to the affiliating type and realisation of the fact that a better form is now possible must not blind us to the fact that the steady advance of India to the position of a self-governing country is being rendered possible by what the universities established in 1857, and those like them that have since sprung up, have done. Besides, it is not simply an academic question whether the days of the affiliating university in India are over. It seems to me that within circumscribed areas they may still perform a useful function.

But with the growth of the number of colleges and of students in attendance a serious danger menaces the system of affiliation. The colleges remain in comparative isolation, their contact with one another and with the university is limited, and the result is that the university appears to the colleges which it affiliates more and more a body whose chief concern lies in the tests which it imposes rather than in the cultural influence which it exerts. Before this stage is actually reached it is clear that energetic action has to be taken. The Indian Universities Act of 1904 was the first step that was taken to invest the universities of India with powers of more effective administration and larger academic facilities. Provision was made, among other things, for the institution of university professorships and lecturerships, and money was assigned by the Government of India to enable these powers to be translated into act. Thus it was that in the University of Madras three university professorships dealing with subjects intimately connected with Indian languages, history, and economics were established, and a beginning was made with a university library. This bald statement might be sufficient to correct a common misapprehension. It is commonly asserted in public, and even in the discussion on the new Bill it was repeated, that the University of Madras is a merely examining body. It is an examining body, and thanks to its high standard of examinations, it has maintained a high standard of teaching in the colleges of which it is composed. But it is more than that. It has insisted, and a reference to the Despatch of 1854 will show that it was right in so doing, on the candidates for its degrees being students undergoing regular courses of instruction. In other words if the university has examined it has also made it a *sine qua non* that those admitted to its examinations should be taught. Private candidates have at times been recognised for special causes, but after the Act of 1904, the terms of which are clearly opposed to the recognition of any such class, the private candidate ceased to have any claims upon the university. It is clear then that the University has exercised functions of examining through itself, and of teaching through its affiliated colleges, and

has seen that in both respects its requirements have been faithfully observed. This has to be borne in mind when the preamble of the new Act is read. It is stated there that one of the objects of the Act is to establish 'a teaching and residential university at Madras'. These words do not indicate either novelty or revolution. They draw attention to the fact that the university, in a more complete and intimate way than ever before, is to be interested in and concerned with the instruction and corporate life of those who belong to it.

Now if it be asked in what way this is to be done a fundamental question is raised. In a unitary university the university is responsible for all the teaching. In some affiliating universities the university is responsible for practically all the post-graduate teaching. In the one case a college becomes a hostel, in the other the individual college has to confine its attention almost entirely to work of a less advanced character. The one suffices where the limits of the university are narrow and funds are abundant; the other may be acquiesced in when the colleges are content to attract to their staff those with inferior qualifications while the university claims those with the higher qualifications. The one establishes its claim to be a real university in large measure through its power to find the funds necessary for the provision of adequate facilities; the other is more likely to lead to friction between the colleges and the university than to co-operation. In the reorganised University of Madras neither of these alternatives is adopted. The University is to consist of the colleges situated within a ten mile limit of the city of Madras, and it is to express itself in and through these colleges. Each college, therefore, has its own place in the university which is to be the supreme co-ordinating power. The University is to supplement the teaching given by the colleges and it is to provide by means of its lecturers and professors what no individual college could supply. It is at the same time to see that each university course is not, as at present, to be taken up in each college. In other words the University will co-ordinate, supplement, and economise. As regards teaching, the unitary university imparts, the hostels supplement; in the reconstituted University of Madras the colleges impart, the university supplements. The unitary university absorbs colleges, the University of Madras is a corporation of colleges with individuality intact. The only medium through which the unitary university can express itself is itself, the medium through which the University of Madras expresses itself is the constituent colleges each with its own contribution to academic and national life.

So far I have spoken of the colleges situated in Madras and of their relation to the University. On this point opinion was almost undivided. But when the relation of colleges outside Madras to the University, as laid down in the Bill, came to be considered, every inch of the ground had to be fought. It is hard to understand this, but the main reason for it is doubtless to be found, as Dr. Macphail pointed out, in the recommendations of

of those in the mufassal. On both counts much misunderstanding had to be cleared away.

It was, for example, stated that the superior teaching in Madras would help to deplete the classes of the mufassal colleges. But all that was needed to dispose of this objection was the well-known fact that the colleges in Madras are filled to their utmost capacity, and that there is no immediate prospect of the establishment of a single additional arts college. On the ground of accommodation alone the metropolitan university is unable to deprive the mufassal colleges of their students. But even when this was made clear there was the other objection, that an affiliated college occupied a lower rank than a constituent college. This objection is not an inference from anything in the Madras Act, although it might be a legitimate enough inference from the recommendations of the Calcutta University Commission as to Bengal. Within the city of Calcutta, and this indicates one very large distinction between what prevails in Madras and what prevails in Calcutta, the Commission recommended that those colleges which are fitted to become component and recognised colleges of the University should be termed 'constituent colleges,' while those which, through their inadequate equipment, were unable to rise to the demands of the reorganised university should be regarded as 'temporarily affiliated colleges.' These colleges would remain in the position of affiliated colleges until they were able to equip themselves for the higher rank of constituent colleges. As the Commissioners say, 'It is obvious that the proposals here made would place the temporarily affiliated colleges in a definitely inferior position so long as they held that status' (Vol. IV, p. 314). Outside the city of Calcutta the Commission's opinion of the quality of the colleges in general is a plain acknowledgement of their inferiority. It proposes that 'the strongest and most progressive colleges' should be granted higher rank than those which do not attain to this position, and that this fact should be marked out by a difference of nomenclature. Those colleges which were of inferior grade would retain the title of 'affiliated' while to those which were able to answer requirements of staff, stability, and equipment, the name of 'university colleges' should be applied. It is obvious then that in the terminology of the Calcutta University Commission the term 'affiliated' bears the brand of inferiority. It does so within the city and it does so without the city. Clearly then the connotation of 'constituent' and 'affiliated' in the Calcutta University Commissioners' recommendations is something very different from that in the Madras University Act. Much of the discussions in the Legislative Council went upon the tacit assumption that the connotation in both cases was the same. It was therefore beside the mark, for the distinction made by the Madras Act between 'constituent' and 'affiliated' is purely one of locality not of efficiency. And the reason is clear. The object of the University of Madras throughout its story has been not to encourage any one college or to give to one a place of superiority over others, but so

to work as to draw all its colleges to the true university level. And in the present case there is this further reason. Locality is here the true *fundamentum divisionis*, for the object in view is to encourage the establishment of local universities. To this position the Minister for Education held and wisely held. The discussion was long and the fight was well contested. It achieved its object, for the issues were made perfectly plain. The Council recognised that what the conditions in Madras required was not 'university colleges' but 'university centres.' And a fresh definition was added to the Bill. It runs as follows: 'University centre means a local area, outside the limits of the University, recognised by the Local Government on the recommendation of the University as containing one or more colleges competent to engage in higher teaching and research work and to promote university life in a manner calculated to prepare for the institution of a new university.' By introducing this clause two objects were gained. The Bill was kept strictly to legislation for the University of Madras, and thus avoided the inclusion of enactments applicable to other universities and appropriate only to other Acts. And secondly a very definite stimulus was given to the creation of other universities. The task of recommending these university centres is one of the duties specifically committed to the Council of Affiliated Colleges. Under section 27 (f) that Council has the power 'to arrange in consultation with the colleges concerned for the concentration and co-ordination of resources for higher teaching and research and for the promotion of university life in suitable localities outside the limits of the university so as to prepare for the institution of new universities.' The wisdom of the procedure adopted became apparent a little later in the session. In the course of the budget debate members, while agreeing to the grant of three lakhs provided for the reorganised university, pressed for at least a supplementary grant in aid of the Andhra University. It was easy for the Minister to reply that, while in Madras the place for a university already exists, no settlement has yet been come to as regards the position of the Andhra University. But the pressure has now begun. The Council of Affiliated Colleges will before long be constituted, its efforts will be directed towards defining the university centre, and provision for the university in the budget cannot possibly be deferred. The passing of the Madras University Act is bound up with the incorporation by statute at no distant date of the Andhra University. Thus the foundation of local universities is being well and truly laid. There will be more to follow.

Up to this point our consideration has been confined to the underlying principles of the Act as they affect colleges. In the first place the Act assures the colleges of the city of their individual existence, thus enabling them to make their individual contribution to the varied stream of national life, while it works in co-operation with them, combining, unifying, supplementing, and evoking corporate life. In the second place the Act guarantees to the colleges outside Madras their present status and privileges of

affiliation, while it paves the way for that affiliation giving place to the incorporation of groups of affiliated colleges as separate autonomous universities. To lay down these clear points is of the utmost importance.

We may now turn to the constitution of the University. According to the Act there are six Authorities, the Senate, the Syndicate, the Academic Council, the Faculties, the Boards of Studies, and the Council of Affiliated Colleges. Incidentally it may be remarked that the Act has retained the familiar names of the Senate and the Syndicate. In this happy way continuity is emphasised; the connection between the reorganised university and the old university of Madras is closer than between the reorganised university and the recently instituted universities outside South India. The first Authority, the Senate, is a large body of some 200 members. Some are *ex officio*, such as the Director of Public Instruction, the Surgeon-General, the Director of Industries, principals of first-grade colleges, and the university professors. Others are life members appointed because of their services to education or their benefactions to the University. Others again are representatives of various classes and interests, such as the registered graduates, the Legislative Council, headmasters of secondary schools, the Chambers of Commerce, district boards and municipalities, the Corporation of Madras, the Academic Council and the Council of Affiliated Colleges, while thirty are to be nominated by the Chancellor of whom not less than twenty are to represent communities not otherwise adequately represented. This body is entrusted with the making of Statutes, conferring degrees, promoting university instruction and the development of university life, inspecting colleges, recognising colleges and withdrawing recognition from them, and in general concerning itself with the broad general principles of university policy. Objection has been taken to the Senate on the ground that it is large and far from homogeneous. The objection has only to be stated to suggest an appropriate answer. As constituted, the Senate is an endeavour to combine academic with non-academic interests. There is a very real advantage in enlisting the sympathy and services of those who have no university career of their own to look back on but who, in the varied activities of life, see the beneficial effect of closer contact between the academic and the practical. And as regards size, objection has principally been taken to the large representation of local bodies. On this point it may be said that it is difficult to think of any other way in which every district in the presidency may be conscious of a definite relation to the university. And further, as local universities increase, the representatives of the local bodies connected with the areas in which these universities are situated will tend to transfer their allegiance to the senates of these universities. Time will overcome objections to size, and the Senate itself will perform an increasingly valuable function in relating academic and national life.

The second Authority, the Syndicate, is the executive of the Senate and consists of nineteen members, the Vice-Chancellor and the Director of Public

Instruction, eight members elected by the Senate, three by the Academic Council, three by the Council of Affiliated Colleges, three nominated by the Chancellor.

When we come to the third Authority, the Academic Council, we meet an entirely new body. If the Senate combines academic and non-academic interests, and the Syndicate sees to the business affairs of the University, the Academic Council consists of those who have in the main to do with the teaching in the University, its standards and its tests. It has about eighty members, some being *ex officio*, as the Director of Public Instruction, university professors, principals of first-grade and professional colleges, and members of college staffs who are recognised as university readers; others are elected, some by second-grade colleges, some by constituent colleges, some by the Senate, and some by the affiliated colleges; while some who are teachers of the University may be co-opted. The principal function of this body is to advise the Syndicate on all academic matters. It has power to frame proposals as to the institution of professorships, the courses of study, and co-ordination and reciprocity among colleges, to recommend the appointment of examiners, and the recognition of teachers, to control the University library, to promote research, and to constitute faculties in the various subjects. This body is of the first importance; and its need has been long felt, All the wisdom in, and connected with, a university does not lie with those who are engaged in teaching. But in the University as hitherto constituted the Senate has had so many interests to consider that sometimes the strictly educational position has not been a decisive factor; and while the Boards of Studies did valuable work there were occasions when something corresponding to a combination of Boards would have been more valuable than Boards working in isolation. What was lacking in the former organisation of the University is now supplied by the Academic Council, a body of men and women engaged in education, representing the colleges of which the University is composed, and meeting as one of the Authorities of the University invested with definite powers. The membership of the Council will give to the University the advice of those who are dealing practically, and not merely theoretically, with the courses of the University, and who are for the most part intimately acquainted with Indian conditions and attainments. Its power, rightly used, will exercise an influence in the university which will tell on the whole of education with wide-spread beneficial results. If the Council marks a great advance in university education, it at the same time places a heavy responsibility on colleges and their teaching staffs. There can be little doubt that every effort will be made by colleges to sustain a responsibility the discharge of which is fraught with such benefit.

I have said that the affiliated colleges retain their former privileges, and under this Act receive additional ones. Under section 16 (1) the Senate has the power 'to provide lectures and instruction for students of affiliated colleges'; under section 23 (4) ten elected teachers of

affiliated colleges are members of the Academic Council; and lastly under section 26 there is constituted the fourth Authority of the University the Council of Affiliated Colleges, to which considerable powers are assigned. The place of the affiliated colleges in the councils of the University is thus secured in a most effective manner. At the same time it is so secured that the relationship of affiliation shall not be one of permanence but shall be succeeded by the more lasting one of the incorporation of the affiliated colleges in the universities which they are to form. The constitution of the Council of Affiliated Colleges, now embodied in the Act and no longer set forth in a schedule, lays down that the members of this Authority are to be drawn from the principals and staffs of affiliated colleges, from teachers of the University and from local bodies, while ten are to be nominated by the Chancellor. By this constitution the interests of the affiliated colleges are fully safeguarded. The most important power of this Authority has already been referred to, that, namely, of preparing the way for the institution of new universities. Its other powers are to keep the Syndicate and Academic Council informed as to what teaching is needed by the affiliated colleges, to submit draft regulations and ordinances regarding them, to make recommendations as to the affiliation of institutions, and to make proposals to the Local Government through the Syndicate for the allocation of needed grants. These powers, though they seem ample, preserving present interests and promoting future development, were considered by some to be all too few. The main contention of those in the Legislative Council who took this view was that the Council of Affiliated Colleges was a purely advisory body and could take no independent action, and that its powers were therefore largely valueless. A development of this contention was the proposal that two Councils should be set up, one for the north and one for the south, both with executive powers. And this whole conception was crowned by the proposal that a fund should be raised which would be at the disposal of the Council. Where this fund was to come from was not quite clear. There was a suggestion that it should be raised out of the fees paid by candidates for university examinations. The proposal forgot the important fact that the money which the university receives in fees it expends on the remuneration of those who are doing the work which the university as a whole conducts. The fee fund which is really the only revenue-producing fund of the university is not a fund the proceeds of which can be allocated to this college or to that; it is needed by the university for the benefit of all the colleges, and the surplus of any one year is not a sum ready for philanthropic distribution. It is in readiness for any fresh and possibly expensive examinations which the Senate may consider it advisable to introduce. The surplus of one year may thus have to balance the deficit of a succeeding year, as indeed it has actually had to do in the past. Those who advocated the claim of the affiliated colleges to a share in the surplus of this fund could hardly escape advocating their share in the deficit. But leaving aside the matter of funds

University; frame a bill; and when this has been done funds will be forthcoming.' Those who desire to see the establishment of local universities, and that means practically everybody, now know how to proceed, and knowing the road it is inconceivable that they will be slow in pressing along it. According to section 53 of the Act it is incumbent on the Senate at the end of five years from the passing of the Act to submit a report to the Local Government regarding the state of affiliated colleges and the possibility of establishing other universities outside the limits of the University. The Local Government is to place this report before the Legislative Council, and it rests with the Council to take that action which seems to it best. Before these five years pass almost undoubtedly one university will be established, and very likely a second. When the report falls to be submitted there seems good reason to believe that there will be a very considerable reduction in the number of affiliated colleges to be reported on.

We have now considered the type and the constitution of the reorganised university; we next deal with admission to it. Section 36 (1) of the Act runs as follows: 'Students shall not be eligible for admission to a course of study for a degree unless they have passed the Intermediate Examination in Arts and Science of Madras or an examination recognised by the Syndicate as equivalent thereto and possess such further qualifications, if any, as may be prescribed.' The plain meaning of this section is that the university courses proper are to begin after the passing of the present Intermediate examination or its equivalent. At the same time it is possible to point to the fact that a definition of second-grade colleges is included in the Act and that representatives from these colleges are given statutory places on the Authorities of the University. Does the section then mean nothing more than that the courses which qualify for a degree begin, as they do now, after the Intermediate stage? If that is all, there seems little justification for a clause which appears to indicate a departure from present conditions but which really does no such thing. The explanation is to be found in the following section. According to section 37 provision is made for a change in the control of the Intermediate classes. If the Government is satisfied that 'adequate arrangements have been made for the supervision and control' of Intermediate institutions apart from the University then it is possible for the Government by notification to direct that the University has ceased to exercise 'any control over the recognition of such institutions and from the date of such notification the University shall cease to exercise such control.' The provisions of these sections, so different from the definite statements made in the Dacca and Allahabad University Acts, point to one of the underlying principles of the Madras Act, that the reorganisation is to be brought about in a manner which will involve the least possible dislocation. Looked at in this light what these two sections lay down is this. When the Act comes into force, as it has now come, the Intermediate courses do not cease *de facto* to be courses within the purview of the University. For the time being the University

advancement and dissemination of knowledge in particular branches of learning.' The amount actually voted by the Legislative Council for the year 1923-4 was Rs 2,15,000. This may be said to be a small beginning but it is a beginning, and it is also a promise. For the manner in which the Council voted it showed that it was quite prepared at the proper time to make a more liberal grant. And in connection with all the criticism on the finance of the University there is one important consideration to be taken into account, a consideration which is too often left out of the reckoning. In the unitary universities, such as Dacca, the responsibility for meeting the whole cost rests entirely with the University. It has no colleges to help it. The Calcutta University Commission was not slow to point out that, while a body which establishes a hostel is relieving the university of a capital charge in respect of building, it is adding to the responsibilities of the university, and therefore to its recurring expenditure, by adding to the number of students for whom the university has to provide lecturers, libraries, and laboratories. Now in the reconstituted University of Madras every constituent college is a definite gift to the University. It provides not only buildings but a competent staff, able both to give adequate instruction to its own students and to take part in the teaching of the university. Members of the staffs of colleges by being recognised, by being what the Act calls 'teachers,' go to swell the teaching power of the University and so to relieve it of a very large annual expenditure. And they will do more than that, for it is practically certain that the University will continue a good custom already introduced in Madras, and at work in many other universities, that of appointing as a University professor or as a 'teacher of the University' a professor or lecturer on the staff of a constituent college because of his special qualifications, giving him a definite status in the University without making it necessary for him to sever his connection with the college to which he belongs. From a financial point of view this also is a distinct gain to the University. Thus by its reorganised constitution the University which expresses itself through and in constituent colleges gains in both academic and financial resources. And whatever benefits the University as a whole reacts with benefit on the colleges which compose it, and leads to a fuller and stronger unity in diversity.

There is a matter in regard to the individual colleges which is touched on in the Act and which requires watchful attention. Provision is made in section 16 (16) for the Senate 'to enter into any agreement with the Government or with a private management for assuming the management of any institution under it and for taking over its properties'; and in section 45 there is provision for the Local Government transferring to the University the control and management of any of its institutions on such terms and conditions as it may deem proper. These provisions may be necessary, the one to secure the legal title of the University to property, and the other to meet certain possible contingencies. But if effect is to be given to these sections so that the University which is the sole controlling body is also to

become a manager, the door to needless and dangerous friction will be at once opened. It will be a bad day for the University when as manager of a college it comes into conflict with the managers of other colleges that constitute the University. The house will be divided against itself and the stability of the University threatened. A principle of far-reaching importance reveals itself in connection with these provisions; it is possible so to apply them as to subtly wreck the University. At the present stage, and in the interests of the constituent colleges, a caveat must not be omitted.

In concluding this review of the provisions of the Act there are three points which deserve fuller notice but which can be no more than briefly adverted to. The first concerns the status of the University. While, as is fitting, the Chancellorship remains with the Governor of Madras, the principal executive officer of the University is a full time Vice-Chancellor, and the obligation which rested on the university under the 1904 Act to obtain the sanction of the Government to specified acts and regulations is now abolished, and the university as reconstituted is now an autonomous body.

The second point is the emphasis placed upon academic life by the Act. The aim and ideal of the University as set forth in the enactments is that the normal thing for undergraduates should be their residence in a hostel attached to a college and recognised by the university. The stress laid upon this corporate life will have important bearings on the establishment of hostels, the existence of a University Union, the growth of *ésprit de corps*, and the duration of the collegiate course.

The third point is a significant omission. There is in the Dacca and Allahabad University Acts a provision for teachers being eligible for university degrees while exempted from university courses. That is to say, a university definitely established to teach (as stated in the preamble) makes statutory provision for escape from teaching. Could there be anything more inconsistent than a specific provision relieving one class only from the obligation of being taught and that the class of those who are to teach? The Madras Act has avoided this inconsistency. It has no such provision.

The main provisions of the Act have now been considered. As one looks over this piece of legislation one is impressed by its width of view, its caution, and the ideals which it embodies. The Act provides for a university composed of a number of colleges within reasonable distance of one another. In these colleges it will find itself; the colleges supply their characteristic traditions, the university unifies, supplements, and guides. It makes teaching essential, and the residence of its students within its boundaries an aim to be realised as quickly as possible. It enlists by its form of governance the sympathy and activity of those whose interests are practical as well as those whose interests are academic, while it provides for a true standard of culture by means of Authorities which are competent to fix them. It is autonomous. In the meantime it affiliates colleges, but its ultimate aim is

to group them into new and separate universities. It secures for its members corporate life and unique opportunities for research by libraries, laboratories, and teachers. Its endeavour is to give to courses of study an elasticity which is almost inevitably absent from a growing affiliating university. It makes its appeal to the private benefactor and the public purse. The Act calls for our hearty congratulations to the Minister who piloted the measure with such enthusiasm, steadiness, and tact. And it comes as a challenge to every one who cares for the education of South India, and who realises what this university is calculated to mean for India's youth. If we who take part in education answer the challenge of this Act aright, equipping truly our colleges, and choosing those who are best qualified to sit on the councils of the university, and if the challenge meets an equally hearty response from those who can strengthen the university by their generosity, then this Act will prove a source of very great benefit to this presidency and the regions beyond. For the University which it creates, and the daughter universities which will arise, will bring into South India a great access of that culture which quickens the mind and enriches national life.

A New Outlook for Austria

By Donald Grant, M.A.

Interest in Austria has revived again, since the League of Nations has definitely set out to work for her salvation. The basis of the League scheme is a loan guaranteed by Britain, France, Italy, Czechoslovakia, organised by the League, and funded upon Austrian customs revenue, and on the Tobacco Monopoly, if necessary. This definite step has made a great difference to Austria already, and she is really making a heroic effort to carry out her part of the agreement. She is reducing the number of state-paid officials and making many economies in administration ; she has stopped the printing of paper money to cover the budget deficit; she is raising more revenue by taxation, strictly enforced, and has now in view the prospect of a balanced budget within two years or so.

It is a direct and simple plan, but it is necessary to know not only the plan, but also something of the country which is to be saved by it.

Politically and economically the Austro-Hungarian Monarchy had been for generations a unity. Despite natural and racial differences, one system of customs, trade, commerce and foreign relations bound together these Danubian states to the advantage of them all. The war made the national differences more acute, and the Treaty of St. Germain finally destroyed that political and economic unity. Since 1918 we have seen Czechoslovakia, Hungary, Austria, Poland, Jugoslavia, and Rumania [1] waging the bitterest economic warfare against each other, with disastrous results all round. One could give many examples of the devastating results of this Balkanisation of Europe. Suffice it to say that during the four years and more since the armistice, the political and economic relations of these new states have been practically all the time relations of strife and hostility ; the tempers of the people have been damaged; fear and oppression have reigned; barriers, exclusiveness, antagonisms have been introduced.[2]

In the midst of this welter of national arrogance, and general competition in the matter of erecting barriers, Austria was the least adequately provided with resources. The breaking up of the 'ramshackle empire' left to her

[1] Poland has now East Galicia and part of the Bukowina under her control, until the League of Nations finally deals with these territories.

Jugoslavia contains Croatia, Dalmatia, Krain, part of the Banat of Temesvar, and and Bosnia and the Herzegovina. In 1919, when Rumania invaded Hungary, she annexed and has kept Transylvania and a part of the Banat.

Galicia, Bukowina, Croatia, Temesvar, Transylvania were all formerly parts Austria-Hungary.

Italy has kept the South Tyrol, Trieste and some ports and islands of Dalmatia.

[2] These relations have greatly improved in the past year and a half.

the great city of Vienna, and the small mountainous land of Austria proper Nearly all the industries and coal mines of the old empire were in Bohemia, Moravia, and Silesia; the great farms and sugar refineries were in Moravia and Hungary; the pastures for cattle, sheep and swine, that fed especially Vienna, were in Hungary and what is now Jugoslavia. Austria was therefore left without coal, without adequate food supplies, without raw materials, and she even lost many citizens, who had to change their nationality in order to retain possession of their farms and factories.

In this way Austria, now a small mountain country, lost factory, field and flock, but retained a great city, and hordes of refugees from the territories of her old empire, as well as many officials who had to leave these same territories. She also had to labour under the Damoclean sword[1] of possible reparations and debts, which because it delayed its fall, produced such a state of uncertainty that politics, currency and commerce were all unspeakably damaged thereby.

Politically Austria has experienced great changes of system as well as of mood in the past four years. There was in Austria in November 1918 a real revolution, when monarchy with its pomp and power was changed for republic. The shell of the former grandeur remains; but the 'glory' has departed. Since 1918 Austria has had no kings, no princes, no titles. For two years she had a Social Democratic Government which passed much radical legislation. The Social Democrats found the rehabilitation of their country a most difficult undertaking. Towards the end of 1920 they were ready to accept the verdict of the elections, and to give the Christian Socialists (Conservatives) a chance to save the country. Various chancellors endeavoured to set the Austrian house in order: appeals were made; threats were uttered; rumour was always sure that a terrible crash or a second revolution was imminent; loans from abroad were discussed, hoped for expected, usually in vain, although one or two small loans were granted. And then as a forlorn hope, came the League of Nations project sponsored by Dr. Seipel, the present Chancellor.

Austria has practically no army; militarism is quite dead, and the loud nationalism of which we have heard so much in the past few years, is practically non-existent. There is no question that Austria has behaved in an exemplary way from all points of view since 1918. She is at heart now a free-trade nation desirous of co-operation; she is soundly republican; very democratic in her institutions and legislation, keen on education, and on doing all possible to develop her young people in sound and healthy ways.

It must not be imagined that Austria is a beggar land. By nature she is a land of mountains and valleys like Switzerland, on a smaller scale of

[1] It must be remembered that the question of Austria's war debts, reparations, etc. had never been settled. The resulting uncertainty, and the possibility that large sums might be demanded of her, have constituted one of the worst burdens during the past four years, for they have under-mined the self-confidence of the nation, and made foreigners very chary of advancing credits to Austria.

grandeur, and becomes year by year deservedly more popular with summer and winter tourists. The very names—Tyrol, Salzkammergut, Danube—call up before one a picture of Austria. Then one must think also of provincial towns, like Salzburg with its memories of Mozart and its sense of the past; and of Vienna (the Vindobona of the Romans) coming to her zenith of glory under Francis Joseph, and still one of the chief cities of Europe.[1]

Austria has about six millions of people and of these about two millions live in Vienna, which is the most important 'state' in the Austrian Federation. Situated on the Danube, where the most easterly foothills of the Alpine chain look out upon the Hungarian plain, Vienna has a commanding position. A thousand years ago she was centre of trade and commerce. Her first-class banking system, her central position in the network of railways, her equipment as a river port, and her numerous business houses (as well as her trade returns), seem to indicate that Vienna will continue to be the most important centre on the Danube for trade and commerce. This fact itself must be reckoned as one of the greatest national assets.[2]

Austria has great resources of water-power, largely undeveloped. For two years now the state has been pushing forward the work of electrifying the railways, one result of which will be to save a great part of the bill which has now to be paid abroad for coal.

According to President Hainisch, himself one of the best farmers in Austria, the country should, with a well developed agriculture, produce seventy-five per cent of the food she needs. In forests Austria is rich, and she has productive iron mines, including the famous 'Iron Mountain' which the Romans began to work. Products which Austria can export are furniture, machinery, boots, motor-cars, and well-finished luxury articles of all kinds. Expert and authoritative economists and public men within the country assert that, given stable conditions, and a re-established national self-confidence, Austria can stand upon her own feet economically.

In spite of these important resources, and the will to produce, Austria has been going down hill steadily from 1918 up to the end of 1922. Charity she received in great measure, but a helping hand towards recovery not at all. It is true that there have been loans, like the British loan of two millions sterling—but these loans have been too small. They have not in the least arrested the downfall of the Austrian crown. The par rate of exchange is roughly 25 crowns to the £. In 1918 the fall had already begun. In 1920 it fell from 900 in January to 2900 in December; in 1921 from 3000 in

[1] The love of the Viennese for their city is well known, and is celebrated in song and story. A Viennese, who returned to Vienna after years of absence, during these years of privation, is said to have found the three famed characteristics of the city unchanged: the wonderful water, the pretty girls, and Vienna music.

[2] The cosmopolitan city, with its nearly two million inhabitants, is felt to be a burden upon the agricultural resources of the country. The relations between city and country are not cordial.

January to 26,000 in December; in 1922 from 30,000 in January to 330,000 and 350,000 in August.

Prices rose, following the fall of the crown but more slowly; wages and salaries rose still more slowly; indeed some salaries, and especially rents and pensions, and incomes from money fortunes, saved before the debacle, hardly rose at all, with the result that salaried people suffered very greatly, while 'rentiers' were reduced to extreme poverty, having to sell jewels, furniture and even clothing. The plight of the middle classes in Austria has been so often described that it is not necessary again to do so. But it is necessary to point out that the intellectual life of the country has been impaired by the years of hardship. For Austria, though now so poor financially, has had a wonderful history, and the dignity of achievement is still with her. Her universities, clinics, art-galleries, museums, academies and other schools, still living possessions of her people, continue to attract young students from Central and South Eastern Europe, and even from France, Britain and America, so sending her light to far corners of the earth. To all seeming Austria should remain such a centre of light, unless circumstances prove too hard for her intellectual classes. But how can culture or education flourish when both master and pupil have to live in economic poverty? Professors struggle to keep a family on the equivalent of £3 to £5, a month, and students eke out an existence upon a third of that sum and even less.[1] Austria has suffered during these famine years, because she had too many egyptologists and philologists; too many teachers and philosophers and artists, and too few men with pounds and dollars. She could not buy books, instruments, reviews, apparatus, in France, Britain or America, or even in Germany. She could not even enable her own men of science to print the results of their own researches!

The University of Vienna, founded in 1365, needed in 1914 the sum of £126,000, as a Government subsidy. In 1922 all she could get from the state was £4000. The library of the University has not been able to purchase books abroad since 1917. Vienna is a great centre for academies of science, of art, and for educational institutions. All these have been hit even more sorely than the University. What is true of Vienna is true also of Graz, and Innsbruck and their Universities; and true also of Art, intellectual life and culture in general. There is small reward for the finer things of the mind and the spirit. Those who love these things and pursue them find it almost impossible to live. Parents who are wise in their generation do not allow their most promising children to go in for a University career, but send them instead to learn trade and commerce. The reason for this, openly acknowledged, is that men who follow science, knowledge, research and the things that pertain thereto, have become the new proletariat, while those who go in for business are able to make a good living. But help of a

[1] Since the beginning of 1922, Professors have had on an average the equivalent of £6 to £7 a month.

more fundamental kind than charity is needed if the intellectual light of Austria is to be kept burning. There is no doubt that prolonged charity from Relief Missions has demoralized many people in Austria; only constructive help should now be given. The Friends Relief Mission have long since concentrated their support upon constructive measures in agriculture. The European Student Relief has been working for two and a half years among the struggling students of Austria, and practically all of its budget for 1922-23 is being devoted to self-help schemes, so that the students may be helped thereby to stand presently upon their own feet.

Such self-help schemes are indications of the present mood among serious people in Austria. The feeling is abroad that firm ground has now been touched, and that it remains for the Austrians to carry out their share of the effort to reach the shore. There is a world of difference between the resigned mood of despair and decay which permeated Vienna and Austria in September 1922, and the uplifted, forward-looking mood of the New Year. And it is at such a time of renewed hope that the intellectual life of the nation is of first importance. The League of Nations has published a brief report on 'The condition of the Intellectual Life in Austria,' containing recommendations for helping to re-establish that life. No educated person can fail to have a direct interest in such a matter at the present day, and so the report is sure to be widely read and its proposals supported. The League has taken action at an opportune moment, following on the first great step,—the guaranteed loan—towards the rehabilitation of Austria. The new mood of hopefulness and self-confidence is an inspiration to this small land, once so great and proud, which, though her riches and glory have been stripped from her, has it still in her power to give to the world her great gifts in the realms of art and learning.

The Measurement of Intelligence and its Value for Missionary Work

By the Rev. D. S. Herrick, M.A.

The essence of scientific method is measurement. A moment's reflection will convince any one that this is true of the physical sciences, such as astronomy, where the measurement of distances and movements of the heavenly bodies plays so large a part; or dynamics, where forces are measured; or chemistry in which measurement is applied to the elements of matter either singly or in their combinations. Run through the long list of physical sciences—zoology, biology, geology, botany, etc, etc. whether as pure science or as applied to the arts and industries, and it is evident that measurement of some sort or other bulks very largely in them.

When we turn to the science that deals with mind, however, this dependence upon measurement is not so evident. How can an imponderable entity such as mind or thought be measured? When we do not really know what mind is, how can any one be so bold as to say that it can be measured? We cannot weigh it, nor apply a tape measure to it, nor use any of the common methods of measurement employed in physical science. But we can observe what it does, or what men do with it; and therein lies the secret of mental measurement.

Measurement is a process of comparing one thing with another, a material object with another of the same kind, a force with other forces, a distance or portion of space with other distances or portions, the speed of movement of one machine or man or animal with that of another. In the same way mental tests are a useful way of comparing one person with another in respect of what they can do with their minds.

To be of practical value, every sort of measurement must possess a standard with which the thing measured may be compared. We have our foot rule, our pound weight, our liquid pint, and all the weights and measures that have been derived from them in the long life-history of man. In measuring time, we have our natural standard in the movements of the earth. A standard of some sort is equally necessary if we are to attempt to measure mind in any of its aspects, or, more specifically, if we are to measure intelligence. There is no natural standard for this. So it has been necessary to agree upon a standard which is partly natural and partly arbitrary.

Before we proceed to discuss this standard it is desirable that we have some understanding and agreement as to the meaning of the term

'intelligence.' The commonly accepted meaning of the term as taken from dictionaries is too general, e.g. the Century Dictionary defines it as 'understanding, intellect, power of cognition,' and in another sense as 'cultivated understanding, acquired knowledge, information stored up in the memory.' The latter definition limits it to the sphere of memory. The former is too vague. The definition generally accepted by psychologists was arrived at after considerable work had been done with mental tests—in other words, after it had been studied scientifically. As defined by Stern, intelligence is a general capacity of an individual consciously to adjust his thinking to new requirements. It is general mental adaptability to new problems and conditions of life.' Similar to this, but not so good, is Burt's definition of intelligence as 'the power of readjustment to relatively novel situations by organizing new psycho-physical co-ordinations.'

Intelligence, then, is not merely information that has been acquired, nor even the ability merely to acquire information. It involves the ability to make good use of knowledge and experience in the varying conditions of life. Where these conditions do not vary much, the person of low intelligence will survive after a fashion. But in emergencies where the power to perceive the significance of things and events, to compare and to judge, is required, the person of low intelligence, if left to his own devices, is likely to perish. The ordinary school examination, necessary as it may be for measuring the progress of the pupil in school work, does not test his native ability, or intelligence. It tests his memory and endurance, and his ability to write fast. Its usefulness is restricted to showing what a pupil has learned about a given subject. That is about all. It was a great achievement in the history of education when the French psychologist Binet, after much experimenting, devised a system for measuring intelligence which was as great an advance on the previous attempts to measure specific forms of mental ability or capacity by individual tests, as those were an advance on no measurement at all, or on mere guess work.

The essence of the Binet system is the use of a group of tests, and the determination of a standard of performance for each age tested. The form of the tests was largely that of questions chosen for their suitability to show whether the subject possessed those mental qualities that psychologists are agreed upon as essential to intelligence. What questions were suitable for this had to be determined by an immense amount of experimentation and involved the examination of thousands of subjects. When a group of questions was found which elicited satisfactory responses from, say, 70 per cent of the subjects of a certain age examined, but which could not be answered satisfactorily by more than a small number of subjects a year younger, those questions were taken as a fair test for subjects of that age. Thus a standard of average intelligence for each age was found with which it is possible to compare any person.

Besides questions requiring a verbal answer, the tests included the doing of certain things, such as copying a square (age 5) or a diamond (age 6)

uniting the halves of a divided rectangle (age 5), etc. Most of the tests required a verbal response, as is the case also in the numerous revisions of the Binet scale. This is a disadvantage which another type of test seeks to overcome, viz. the *performance* test. In this type of test some form of simple apparatus is placed before the subject and he is asked to do something with it, e.g. in the Goddard form-board he is asked to take in regular order ten blocks of different shapes and place them as rapidly as possible in the ten holes of corresponding shape in a board lying before him. The time he takes for doing this, and the errors he makes (such as trying to put a block in a hole of a different shape) are recorded and constitute his score. To put the blocks in their places rapidly and accurately is not so easy as it looks, and requires fair ability on the part of the subject in holding his attention to the task before him, in noticing similarities and differences, and in putting into execution rapidly the judgements formed regarding the blocks. Other tests of this type are of equal interest and value.

Like the Binet scale of tests, the performance scale includes a large number of tests designed to bring out different phases or aspects of intelligence. It is a later invention than the Binet scale, and has not been brought to the same degree of perfection as the Binet scale. Yet it has obvious advantages over that scale in that it does not require a language response from the subject. Investigations recorded in a recent number of the Journal of Educational Psychology show that it has a fair degree of correlation in its results with those obtained by the Binet scale. It seems well adapted for use in the case of deaf or illiterate persons, and those whose language is foreign to the examiner.

Obviously neither the Binet nor the performance scale can be worked very rapidly. Each requires close observation on the part of the examiner and careful attention to detail with a view to uniformity in respect of the conditions under which the tests are given. It takes from half an hour to more than an hour for each subject examined. Where a large number are to be examined a more rapid method is desirable.

To supply this need the *group test* was devised during the late war by expert psychologists in America. This form of test made it possible to examine several hundred subjects at once within an hour or so. In this type of test, as in the Binet and performance tests, the two principles of a *group of tests* and the provision of a *standard of comparison* are fundamental. Some eight or ten tests of varied character are given which 'undoubtedly sample the most important types of intellectual process.' Each test consists of a number of parts arranged in the order of their difficulty from low to high. Almost no writing is required, responses being indicated by underscoring, crossing out, or checking words presented on the printed examination form. A large variety of the group tests have been tried, and others will doubtless be devised.

Two forms of the group test were devised for use in the United States Army, one for men who could read and write, and the other for those who

were wholly illiterate. They embodied tests of the following varieties of mental processes, viz.:

(1) ability to follow directions,
(2) to solve simple arithmetical problems,
(3) to exercise practical judgement,
(4) to recognise synonyms and antonyms,
(5) to arrange in correct order the parts of disarranged sentences,
(6) to complete a series of numbers in a logical way,
(7) to recognise analogies,
(8) to exhibit a certain amount of general information, such as a normal person would possess without special education or instruction.

In order to prevent coaching and cramming there are five alternate forms of the army Alpha group test, and at least two each in the other principal group tests.

The methods of reckoning the standing of the subject examined are various. The Stanford revision of the Binet scale reckons on the basis of mental age. It is believed that the average normal adult in western countries becomes mentally mature at the age of 16. If a subject whose chronological age is even greater than this passes the sixteen year test his mental age is reckoned as 16, i.e. normal. If he can pass nothing higher than the 14 year test, or the 12, or 10 or 9 year test, as the case may be, his mental age is reckoned accordingly. A subject who fails to pass anything higher than, say, the 8 year test, whether he is a child of 10 or 12 or an adult, has the *intelligence* of a child of eight, and should be judged and dealt with on that basis, so far as this side of his mentality is concerned. The implications of this fact are significant and far reaching.

Another means of expressing degrees of intelligence is the *intelligence quotient*, 'i. q.' for short. This is found by dividing the mental age by the chronological age, e.g. a child of 12 with a mental age of 9 is said to have an i.q. of 75 (100 being the normal.)

Another method of comparison used is that of the Point scale, a revision of the Binet system. In this the scoring of responses is made by assigning a certain number of points to each test. The number of points gained by an examinee is compared with the average score of a child of the same age, and the result is called the *co-efficient of mental ability*.

For performance tests four methods of comparison are proposed, viz. the year scale, similar to the Binet method; the median mental age, in which a subject's performance is compared with the median or average performance of a large number of subjects examined; the point scale, constructed on the same principal as that just referred to; and the percentile method. The latter method will be briefly referred to in connection with the group test.

In this form of test as a rule each item passed scores one. The total passed, minus errors in certain of the tests, gives the score made by the subject. This score when compared with the average score of subjects of the same age as the examinee gives the *index of brightness* ('i. b.' for short) and the *percentile rank.* The limits of this paper forbid further explanation of the method of obtaining these figures.

It is not claimed that any one of these methods of comparison used in the three types of tests is an absolutely accurate index of mental ability. What is claimed is that all of them are thoroughly reliable methods of *comparing one subject with another.*

The gain to society accruing from a system of mental tests, whether in judging of the fitness of individuals for particular vocations or positions of leadership and responsibility, or in dealing with delinquents and criminals, or in grading school children, or in selecting pupils for promotion to higher classes, or for special training—the gain to society is incalculable. Where guess work and otherwise imperfect methods of selection yield to methods based on scientific principles, the benefit to society is enormous. There is no doubt that the efficiency of the U. S. Army was greatly increased by the use of psychological tests as a means of selection for the different units and forms of service required. Doubtless the British army benefited in a similar way when these tests were adopted. The lack of them in the early days of the war doubtless led to the rejection at first of many who seemed unfit from a physical point of view, but whose mental qualifications enabled them later to do valiant service, as in the case of Col. Lawrence.

Furthermore, it is not claimed that any psychological test yet devised can give a complete inventory of anyone's mental qualities. It does not measure a man's moral qualities nor tell much of his emotional make-up. It tells us only about his *intelligence.* In the long-run, however, it is found that moral qualities are closely linked with intelligence. Persons of average intelligence are more likely to possess good moral qualities than those who are intellectually inferior. Examples illustrating this are on record, e.g., that of the Kallikak family. Out of 480 direct descendants of the union of Martin Kallikak and a feeble-minded girl, 36 were illegitimate, 33 were sexually immoral, 24 were confirmed alcoholics, and 8 kept homes of ill fame. The fact that at least 143 of these 480 descendants were known to be feeble-minded is enough to account for this dreadful record. Compare with this the record of 496 other descendants of the same man and the girl of good family whom he later married. There were no feeble-minded descendants, and significantly no illegitimate children, no immoral women, no criminals, no keepers of houses of ill fame, only two confirmed alcoholics, and only one man sexually loose. The family was made up of doctors, lawyers, judges, educators, traders and landholders. The connection between character and intelligence thus briefly indicated is of immense significance for the moral life of a community.

It remains to consider how far mental tests may be found useful in Mission work.

In Western countries several lines of usefulness have been followed, e.g.,

(a) For testing vocational fitness, as illustrated by their use in the U. S. Army. They would probably be equally useful in India. But this is not in the line of Missionary work.

(b) For moral diagnosis of delinquents, e.g. in the juvenile courts in the United States. A 13 year old boy with the physical development of 18 and mental age of 10 cannot be treated on the same basis as a normal adult criminal. There may be some use for this in Mission work, as in the case of a disorderly school or class.

(c) For estimating the ability of school children. If a child is actually retarded mentally, or is feeble-minded, the sooner this is known, the better for the child. Grading by age is most unreliable, as is grading by guess work. Sometimes, through shyness or difficulty in speech, a child may seem dull, when a test would show it to be quite normal. On the other hand if a child has superior ability this too should be known. Often teachers underestimate ability, as of a child who does his work easily, and might with profit do more advanced work.

The great value of tests for Mission work is summed up in the word 'selection.' If natural selection is the secret of survival, scientific selection is equally the secret of success in any line. The carpenter, builder, etc. selects the materials he uses, and is correspondingly successful. Organisers of industries or of any kind of social activity must carefully select those who are to take important places. The skill and good judgement with which they do this is a large factor in their success.

The Christianisation of India is one of the greatest undertakings ever attempted. It is an undertaking that a few foreigners coming from distant lands, speaking Indian languages imperfectly, and imperfectly understanding the people, can never expect to accomplish by themselves. Nothing seems more certain than that the most important factor in the Christianising of India, humanly speaking, is the Indian Christians themselves. This has been recognised from the first, and an extensive system of education is carried on by every large mission. Its object is not only the increase of learning and culture and the improvement of character for their own sakes, but also the multiplication of teachers, pastors, and others for the care of the Christian community, and for the spreading of the knowledge of Christ more widely among non-Christians. Every boy and girl in our schools is a potential agent for spreading Christianity, even though he may never become a teacher, evangelist, or pastor. Other things being equal the more intelligent of these children will be the ones who will most strongly influence for

good the communities in which they live, even if they never enter a Training School.

It would be a great thing for India, then, if the principle of selection by means of mental tests of some sort should become widely adopted in our Mission schools, beginning even with the village primary school. It must have been often noted that it is not always the brightest, most active, and alert children that are found in the village school. Often it seems as if the really clever children were kept out of school because they were more useful at home, while those who are weak and inefficient are sent to fill the ranks in school, so far as they are filled at all. If the quality of intelligence in our village schools can be improved, it will give us better material for our boarding schools, both elementary and secondary. Here, too, and in a more thorough way, selection can be applied by mental tests with great advantage to the school and all it stands for and serves.

At first it may seem heartless to suggest that any children whose parents are willing to send them to school should be excluded from the advantages of the most elementary education. Does not their need constitute a call that we should heed? By all means. But it is not merely the *need* of the individual that God looks at in making His gifts. It is also his *capacity to receive* and benefit by the gift. Selection is taking place in our schools all the time. What we need is that it shall be based on the *soundest principles*. Shall we merely take the word of some interested person? Or shall we be guided by the caste prejudices of those who present candidates for our boarding schools? Or shall we regard ability to pay the school fees as a sufficient ground for admission? We already regard health and character as factors to be taken into account in admitting children into our boarding schools, and to a certain extent this is true of intelligence. But regarding this we often take too much for granted, or judge too readily by superficial indications.

In the past few years a situation has arisen in the Missionary Educational World that may develop into something very serious. The withholding of funds rightly due to our schools must in time lead to the closing of many of them. Our Christian Community is increasing, and the general desire for education is growing. But the number of our schools is not increasing proportionately, if at all. It follows that, if, and so long as, we are able to maintain any of them, we must maintain them in the highest state of efficiency, not merely as regards books, blackboards, and benches, but in that most fundamental aspect of all, the material upon which the teacher has to work, viz, the pupils admitted to the school.

That suggests again that this same principle of scientific selection must be applied in the case of the teacher, not necessarily when he is engaged to teach the school, but long before that, viz. before he is admitted to the Training School. Not only health and character, but also a high degree of *intelligence* must be the criteria of fitness for training for such an important

calling as that of the teacher, the one whose privilege it is to guide the growing mind and inspire it to its best endeavour.

The same is true of our theological seminaries and colleges. A man with an i.q. of 75 or 80 may do well enough as a writer or in some post that does not require a great degree of judgement nor bear much responsibility. But it is a waste of time to try to train such a man for pastoral work.

As to the form of test, for general use in elementary schools probably a few of the performance tests would be most useful, and it would not take so much time for a busy missionary to acquire a working knowledge of them as it would to become well enough acquainted with the Binet scale to use it accurately. Not so many of the tests require adaptation to the Indian environment as is the case with the Binet scale and some of the group tests. It should be noted that the use of only one or two of these is of no great value for measuring *general intelligence,* however interesting and useful they may be for comparing individuals in certain lines.

In secondary schools and colleges the group test accomplishes the largest results in the shortest time and with the least preparation on the part of the examiner. As yet little has been done in adapting group tests for use in the vernacular in lower grades. Something is being done, but it is still in the experimental stage, as indeed is most of the use of mental tests in India. What has been done is chiefly by individuals interested in the subject. One Mission is using mental tests in selecting candidates for its boarding school. Another is convinced of their value to such an extent that it has contributed a sum of money towards the expense of adapting and printing tests for use in India.

Any attempt to devise new tests for use in India is to be deprecated. It is little more than a waste of time. There are few missionaries in India who can claim to be expert psychologists. If there were many such they could hardly expect to improve on the work done in the West in devising and standardizing the numerous tests that are already in use. What is needed is that a few of the best tests, say some good revision of the Binet scale such as the Stanford, or the Point Scale, and three or four good series of group tests, should be carefully *adapted* to the Indian environment. One of the questions in the 'Comprehension test' for age six in the Binet scale is 'What is the thing to do if you find that your house is on fire'? Such a thing is rare in the experience of Indian children, and we could judge little from the response. But if we substitute for this a situation common in Indian experience such as 'What is the thing to do if you find that a buffalo is in your paddy field'? and find a child that can make no sensible suggestion as to what should be done, we should be justified in setting him down as lacking in intelligence, *provided,* of course, his answers to other questions were equally unsatisfactory.

Some also of the performance tests will need to be adapted. The 'picture completion' test contains scenes unfamiliar to Indian children, which can be replaced by those common to Indian life.

The human mind the world over is essentially the same as regards the elements of intelligence. Such differences as there are between peoples of different races or countries consist probably in the varying degree of development in them of some of the elements of intelligence. Experiments with the cube test in India have brought to light a number of Indian boys who have made the highest score possible in this test, as compared with only one American boy recorded by Pintner as having made a perfect score. (The cube test is essentially an observation—memory test.) On the other hand, tests with the Goddard form-board indicate that the psycho-motor ability of South Indian children is considerably lower than that of American children of the same age.

Aside from the practical value of mental tests for the purpose suggested in this article, it should not be overlooked that the results accruing from extensive and properly conducted experiments with mental tests must have a considerable scientific value. Granting that Indians and Europeans or Americans differ in some of the elements of intelligence it will conduce to a better mutual understanding, and perhaps to an enchanced appreciation, if it can be discovered by a reliable scientific method in just what respects they differ. To discover facts is the aim of science. To recognise facts and to shape one's course accordingly is the part of wisdom.

Ancient Tamil Society as Depicted in the Purananuru II

By R. Rangachariar, M.A., L.T.

The King's Council

The Council consisted of the five great bodies or assemblies of officials (ஐம்பெருங்குழு) namely ministers, purohits, generals, ambassadors, and spies. This assembly generally looked after the affairs of state. In addition there was an assembly of the eight groups of attendants (எண்பேராயம்) which included the higher officials and departmental heads. They were the executive officers, judges, treasury officials, palace guards, great men of the city, captains of troops, elephant-warriors, and cavalry officers. In a majority of cases, the offices were hereditary. The council meetings were held during nights in secret, in separate places allotted to them. The assembly was only an advisory one, and did not dictate any policy to the king who however out of respect to the hereditary attachment of its members to his house and their collective wisdom and experience, was morally, though not legally, bound to follow their advice. The administration was divided into a number of departments over each of which a minister or other high officer presided. The heads of departments were jointly responsible for the whole policy of the administration. Every one of them was a trusted servant of the king, his philosopher, friend, and guide. Therefore they 'will never swerve from the path of right, even if milk taste sour, if the day become dark and the Vedas speak false.' (Pur. 2). They were extremely honest, truthful and 'impartial like the tongue of a balance.'

The King's Court

The court was generally held in the capital city, which was a highly fortified place, with walls, ditches, citadels and engines from which to throw missiles. In times of emergency, when the very life of the state was threatened, a still safer place served as an asylum, this being located in the midst of difficult fastnesses or deep jungles. The capital cities had the usual defences of mountain, water, ground and forest, according to their location and facilities for one or more of them. (The Sanskrit authors classify the forts under six heads namely desert-surrounded fort, hill-fort, ground-fort, mud-fort, men-fort, i.e. an undefended town depending on its men for

protection, and jungle-fort). As the king was bound to supply his troops with weapons and food, he had a large supply of arms in his armoury and enough provisions for a large garrison to last for a long time. In fortifying a place they took care to see that it had a plentiful supply of fresh water to last them through a long siege. Even as is done to-day, the fort contained only those who were capable of fighting. The feeding of non-combatants was thus avoided. The treasury was also located in the capital. It was well filled with gold and guarded with great care.

Within the fort was situated the royal palace, likewise well-fortified. The building covered an extensive area with many courtyards and apartments. Those who came to have an audience with the king waited in the outer courtyards, and were ushered into the royal presence after due orders from him. The poets required no such permission to enter the royal assembly, and were given free permits to enter or depart as they chose.

Sources of the King's Revenue

The unit of administration was the village. Every kingdom consisted of a number of such units. Each of them was self-sufficing and independent, and ruled by a headman or a minor chief. The Pandyan embassy to Augustus, the Emperor of Rome, told him that the Pandyan king was the lord of 600 cities, which clearly indicates that each of these cities was like the city-states of Greece, though smaller in extent, and paid tribute to the paramount power. The tribute was paid in kind. This might be called the land tax. A sixth of the produce was generally collected as being the most equitable contribution to the State (Pur. 16). The king was required to protect the people and their property against violation and to provide facilities for cultivation in the shape of tanks and irrigation channels. The grains that were collected by the king were utilised in feeding his vast army, household servants, dependants, and guests, as well as the indigent people who flocked to him for support.

In addition to the land tax, much revenue was derived from tolls and customs. On the frontiers of their countries the kings placed their officials to collect tolls. As the payment of these dues gave the merchants a safe conduct and protection within the territory of the chief or king, they were very willingly paid. The customs duties were collected in the chief sea-ports. As an indication that the customs duties had been paid, the king's officials used to affix the king's seal on the bags. It was not an unusual sight in those days to see heaps of bags lying on the foreshore waiting to be removed to the godowns of the merchants. Spoils of war were an inexhaustible source of revenue for them, Mines were worked near the surface and probably afforded an additional and a profitable source of revenue. Elephants captured from foes belonged exclusively to the king. They had large herds of cattle which were considered as good as money, and hence articles were battered for cattle. Treasure trove

belonged to the State, unless the claims were specially abandoned by the kings in favour of the discoverer. (Chilapathikaram XXII. 128-9).

Administration of Justice

The administration of justice was personally looked after by the king with the assistance of wise men well versed in the customs and laws of the land. Probably no distinction existed between civil and criminal cases in the matter of procedure. Theft was less prevalent within the country than on its borders. Punishments were very severe as among all ancient communities. Theft was punished with death. Spying was also visited with capital punishment. (Pur. 47), which shows that spies had no lincense as among the Indo-Europeans to carry on their nefarious practices, without being brought to book. Sometimes the unfortunate victims to the king's wrath were trodden by elephants (Pur. 46) Justice was never slow. When innocent people were brought as suspects and given punishments, the poets and those who were near interceded on their behalf, and saved them from the clutches of the law (Pur. 46). During these very difficult occasions, the kings justified their position by showing to the world that they were amenable to reason. Justice was always tempered with mercy.

In the provinces and townships, justice was administered by their respective heads assisted by a Panchayat consisting of the old and very respectable men of the place. The constitution of this very popular assembly was quite democratic. From what we know of it during the days of the Pallava and the Chola ascendancy, between the eighth and the eleventh centuries A.D., we can infer that the members were elected by the people and the assembly took cognizance of all matters of local importance and settled every difference between one individual and another. Puram 266 gives us an idea of its great popularity and the confidence of the public in the integrity and the wisdom of its members. Public opinion was very strong in these local bodies and none dared to offend them by disobeying their orders. They were the asylum of the weak and the oppressed, and as the people of those days were moral, truthful, and god-fearing, the ends of justice seldom failed with them.

Military Organization

The spirit of adventure and rivalry among the Tamilian kings bred in them a love for war. Hence the whole manhood was in an attitude of war, ready to take the offensive or be on the defensive at a few moments' notice. Their military organisation was therefore developed to a high degree, and was maintained at a high level of efficiency and equipment, according to the ideas then prevailing.

As a nation of warriors, all were ready at any time to fight for their king and country. There was no necessity for a standing army at first.

At a later stage, when the king's extensive conquests brought him face to face with other great military powers and with potential dangers, the necessity arose for keeping a standing army. The warrior tribes with whom they came in contact were freely enlisted in the army. In this way the standing army grew side by side with the growth of imperialism.

Early Tamil literature resounds with the military exploits of the four arms of the army—the foot, the horse, the elephant and the chariot. The whole fighting population came under the first heading. The horse was an arm especially created by the Tamils in imitation of the other nations with whom they had occasions to fight. The horse was indigenous to the south. From very early times, the Tamils also imported into their country large numbers of horses, mainly for military and state purposes. Farriery was not known to them and the foreign importers of horse took care to keep the secret among themselves and not bring farriers with them. The result of it was that a great many of them died in the course of a few months and the kings were required soon to purchase a fresh consignment. In this way the foreign horse-dealers maintained a splendid trade for centuries. The elephant and the chariot were indigenous to India. Both of them were utilised for war purposes at a later day after seeing them used by their Indo-European brethren. The elephant brigade was a terrible arm of the army. Warriors were trained to fight with elephants. At times the elephants proved dangerous to the owners themselves by their cowardly retreat, and caused a general stampede among their own men. To avoid this calamity the trainers took care to intoxicate the animals with toddy.

The army had several grades of officials. There was a Generalissimo who had the highest authority in military matters, and whose advice carried much weight in the royal court. He was 'the hero of a hundred fights' and inured to camp life. He had under him other officials who were in charge of the supplies and transports as also the navy if any, the spies and the war-scouts, as well as the army hospitals.

Weapons

The soldiers fought principally with bows and arrows and with spear, sword and shield. In later times, new weapons were introduced. Mail armoury and helmets do not find prominent mention in ancient Tamil works, and therefore they may have been of foreign introduction. Only the richer classes among the fighters and the kings could afford to wear them. Mention is made of the body-enclosing instrument (மெய்புகு கருவி) and this is only a periphrasis of the mail-armour which they probably saw used by foreigners. The word *kavacham* itself is Aryan and that proves its origin. The Tamils at first wore a coat of tiger's skin. The exposure of the scars of wounds received in battle was considered to be very honourable and praiseworthy. These scars were deemed to be the best ornament of the warriors and their chief passport to fame. (Pur. 167). A special

armoury was maintained by the kings in a part of the royal palace, which was shown with much pride and satisfaction to visitors and guests. The arms were kept well burnished, smeared over with ghee to keep them from rusting, and adorned with peacock feathers. In times of war the kings or chiefs supplied their men with the required weapons. The country smiths were the artisans that supplied the army with excellent weapons of tempered steel.

Skill in archery and swordsmanship early attained perfection among the Tamils, and their sword fighting became a by-word among the Indo-Europeans. The use of poisoned arrows was probably prohibited by the ethics of war as we find no mention of them in the classical works. War-cries and cheering resounded in the battlefield as an encouragement to the fighters.

The method of fighting has not been described. Victory depended upon the superiority of numbers. 'All is fair in war' was a maxim unknown to them. Honour and fame were the two stars on which they fixed their hearts. The four-fold ways of winning over an enemy namely *sama*, *betha*, *thana* and *thanda* belonged to the later degenerate days of despotism, when political morality was at a low ebb as the result of contact with the Greeks and other foreign nations.

Foreign Relations with other Princes

The Tamil land was in theory divided among the three kings, the Chera, the Chola, and the Pandya, but practically the major portion of the country was in the hands of petty princes nominally owing their allegiance to one or the other of these three. They probably belonged to the same race with a few exceptions, spoke the same language, followed the same customs and manners and invariably intermarried. Still political ambition impelled each of them to encroach upon his neighbours' territory. Invasion and conquest of the country did not necessarily lead to its annexation by the victor and the consequent extinction of the fallen house. The ambition of the conqueror did not extend beyond reducing the country and exacting a heavy tribute in gold, horses, and elephants. But fighting often led to the death of rival kings. During campaigns the tenacity of the kings and their warriors and the utter disregard they showed for their lives made them fight until they conquered or died. After the death of a king, his heir was recognised as a ruler by the victor, and enjoined to send an annual tribute.

These feuds and rivalries were the causes of a great deal of trouble to the Tamil land, often ending in depopulation and devastation. Yet they served one useful purpose, and that was they kept up the martial qualities of the Tamils. They were the days of heroes whose appetite for fame was fed daily with deeds of valour. The Purananuru verses have immortalised them. The subsequent history of the Tamils down to our own times has confirmed their inherent martial qualities. Since they placed their honour above

everything else that was sacred to them, they never resorted to treachery in their dealings with others. Spying was universal and was developed into an art. Great precautions were taken to see that spying was done fairly and squarely, without endangering individual liberty, and without victimising innocent individuals against whom the spies might have a grudge. The spies themselves were spied, and when the reports of these spies who had no opportunities of knowing each other for nefarious collaboration agreed in the main, then only action was taken by the kings. In this way the innocent were protected and the wrong doers and the disloyal punished.

Embassies were exchanged with each other and even with the kings of foreign countries such as Rome on the west and Java on the east. The laws of their warfare were fair, honourable and humane. Judged even by modern standards, they are sure to occupy a respectable place, not in any way inferior to the doctrine enunciated by the international convention at the Hague.

Vocations of the People

The lands were classified under five heads, each of which had an important bearing upon the character and the life of the people, as well as upon their professions and occupations.

1. *Kurinji or hills.* These tracts were peopled by hunters who raised crops of *thinai*, collected honey, and dug out edible roots for their sustenance. The hill valleys contained their villages known as *kuruchi*.

2. *Mullai or forests.* The people living here were the shepherds. They raised millet and other dry crops besides tending their flocks. They lived in a separate block known as *cheri*, far removed from the town or village, but in proximity to the pasture grounds of their cattle. This does not mean that these people were an inferior or a polluting caste. They had to live outside the town out of sheer necessity.

3. *Marutham or cultivated tracts and townships.* These tracts formed the centres of agricultural population (உழவர்) and labours (கடையர்). They were the backbone of the community, their sole occupation being the growing of corn, fruit, flowers, and vegetables. Town-ships developed here, and became the centres of government, trade and the social life for a growing population.

4. *Naythal or maritime parts.* These parts were occupied by Nulayars (நுளையர்) who engaged in fishing, manufacturing salt, diving for pearls, and preparing wreaths of coral and pearls. There grew up in convenient localities, flourishing sea-ports, and emporiums of trade, to which were attracted a large number of foreign traders.

5. *Palai or desert and unfertile parts.* As nothing can be secured from the soil in these parts, the people living here who were called Maravars, invariably resorted to highway robbery for their maintenance. A useful and noble channel was however opened to them to utilise their superfluous energy, as they were largely enlisted in the army.

This method of classification is the most natural and the easiest and simplest that could suggest itself to the early Tamils who had not yet been organised into castes after the system prevailing among the Indo-Europeans, and who were still living under their own tribal organisation. The division of lands according to the physical features of the country and the basing of social and political institutions upon this five-fold classification is a peculiarity met with only among the ancient Tamils. This method of classification seems to us therefore quite indigenous and was evolved without the fostering genius of the Indo-European settlers. But even this classification appears to be of a later development. Puram 335 speaks of only four tribes as being indigenous to the Tamil soil. They are Thudiyar, Panar, Parayar, and Kadambar representing probably the aboriginal tribes who inhabited South India long before the Velir migration and colonisation. The omission here of the Velirs and Vellalas is significant and confirms their foreign origin. This division of the people and their mode of life was surely an arbitrary one. It showed merely who formed a majority of the population and what their respective professions were. We see here how man is shaped and moulded by his surroundings.

The Food of the People

The diet of the people was invariably frugal and simple. It depended upon the nature of the lands inhabited by them, the occupations they followed, and their social position. Superior white rice and rice of an inferior pattern formed the staple produce of the agricultural districts and as such, were the chief food of the people belonging to the respectable and the well-to-do classes of the locality. On the other hand, where rainfall was deficient and artificial irrigation was not possible, ragi, barley, millet and pulses of different kinds were largely grown and consumed by the people. These are much more nutritious than rice, though classed as inferior grains, and gave the consumers who formed the majority of the population great bodily vigour and powers of endurance. Flesh, salted fishes and curries were in large demand (Pur. 61). Toddy was a common beverage among all classes of the people, and they ate sour things to appease their thirst (Pur. 177). The preparation of food differed according to the status of the people. Among the richer classes, very many tasty, well-seasoned dishes were prepared, in which ghee formed the main ingredient (Pur. 187, 160). The sound produced in the seasoning process was compared to the exhalations of an elephant (Pur. 261). Some boiled rice in milk and ate it with honey Others prepared it into a thick gruel (புளியங்கூழ்) by adding to the rice-flour fruits, fishes, tamarind, and edible flowers of shrubs like *Cleome Plentaphyla* (வேளை—Pur. 399). Curries of winged white ants (ஈயல்) were likewise prepared, with butter-milk and tamarind as the main ingredients (Pur. 119). Those who were extremely poor lived on edible leaves and roots and on thin rice gruel (Pur. 64). Succulent vegetables and fruits that entered

into their dietary were numerous. When cabbages were prepared, the flour of rice was invariably used after the seasoning process to remove the moisture still left in them. (Pur. 140). The food of the widows has been already referred to. The seeds of the water-lily were consumed by them as a non-stimulant and a non-nutritive food. The food of the Brahmans was simple enough and conducive to a higher spiritual and intellectual life. Their regimen and mode of life was slowly copied by the upper-classes among the people who gradually became total abstainers of flesh and drink.

The most common drink of the people of all classes has always been plain water, and for this purpose special tanks and springs were reserved to maintain the purity of the water. Drinking toddy and even foreign wines brought over-seas by the Yavanas seems to have been also a common incident of their life. All except the Brahmans partook of them without exception—kings, Panars, soldiers, ordinary woman, as well as royal ladies. Old wines they liked the best, the taste of which they compared to the sting of a scorpion or the bite of a snake, and to the melted ghee of cows in their colour. Hence they preserved wines in bamboo tubes and buried them in the earth for fermentation. Perhaps the foreign wines were the luxury of the richer classes and the kings. These people shared them with their guests and friends. The juice of the coconuts, the palmyra and the sugarcane was relished by the people in general as a beverage either in a simple or in a fermented condition.

Costumes and Jewellery

Their dress was simplicity itself, and did not differ much from what we wear now. As there was no variation of climate to be provided for except in the hilly districts, the majority of the people wore very light clothing made of cotton fabrics. The kings and the richer classes dressed themselves in the same simple style, but with finer materials. The poorer classes were clad in rags. The forest tribes wore a dress made of skins. The upper portion of the body of the people was generally exposed to the air. All wore wreaths of flowers, or leaves, or peacock feathers on their heads and necks. Special wreaths were worn by the kings as a mark of family distinction, and this was imitated by their followers. Courtiers and officials were coats. (Chilapathikaram, XVI, 108). Women were very fond of wearing flowers. Their dress also differed according to their rank and riches. Ancient sculptures and descriptions in the classical works show that the richest among them were dressed in the finest and the costliest of materials.

The women tied their hair into various kinds of knots (முடி, கொண்டை, சுருள், குழல், பனிச்சை) which either appeared on the top of their heads or on the left or the right side. Some plaited their hair and allowed it to hang behind. For combing their hair, they used the outer covering of the fruit of a shrub [*Guilandiana Bonducella* கழற்கனி—Pur. 67-202.] Even men allowed

their hair to grow long, and tied it in a knot. The Brahmans had a top-knot peculiar to themselves. The tonsure of widows is in all likehood a practice of Buddhist origin.

The richness of India in gold and precious stones early cultivated in the people a taste for wearing ornaments in profusion. Even the poorest among the people were not without a few silver or gold ornaments. The goldsmith's art had attained perfection here. The kings used to be very lavish in presenting ornaments of gold and precious stones to persons high and low who appeared before them. Even horses, chariots, and elephants, not to speak of royal halls and furniture, were decorated with gold, silver, and precious stones. The kings wore dazzling crowns of superb workmanship, necklaces of pearls and jewels, wristlets and anklets of gold, the last of which being an emblem of royalty none else could wear.

The ladies wore similar ornaments in still greater profusion, in addition to special ornaments pertaining to their sex for the waist, neck, arm, head, ears and ankles like megalai, kanchi, chilambu, bracelets, etc. This taste for ornaments and dress of varied colours attracted the attention of western travellers who recorded their impressions in extant writings. For instance, Strabo writes as follows: 'In contrast with the simplicity they observe in other matters, they love finery and ornaments. They wear dress worked in gold and adorned in precious stones and also flowered robes made of fine muslin'. Says Curtius Rufus: 'the king lolls in a palanquin garnished with pearls which dangle all round it and he is robed in fine muslin embroidered with purple and gold.' The kings sat on a royal chair of costly workmanship—a kind of mancha or cot (அரசகட்டில்) made of ivory, gold and gems and surmounted with costly cushions—the whole raised on lions' heads carved on the four corners of it.

Young children wore pendants made of tiger's teeth or in the form of an imitation of the five arms of Vishnu (ஐம்படைத்தாலி) as charms and ornaments. Lovers used to present their lady-loves with dresses made of the leaves of the water lily (Pur. 116). All were fond of fragrant sandal paste and perfumery. The people generally wore no head-dress, though the turban is purely an Indian dress. On special occasions, people dressed themselves in their holiday attire of silks and cloths dyed in bright and beautiful vegetable colours. People inhabiting the hilly and the forest areas put on leather sandals. There is no mention of any caste-marks being worn by the people excepting holy ashes, which shows that the people had not yet become differentiated into minor sects. The Yogis and Sanyasis led an austere life, practising penance in the forest like their Indo-European brethren [Pur. 251–252]. They matted their hair and eschewed everything the worldly-minded craved for.

Physique and complexion

The Dravidians were a race of men and women, virile and strong. They devoted much of their time to manly exercises. The improvement

of their physique and keeping it at a high level was a necessity for this nation of warriors. Athletic exercises, wrestling, jousting, hunting, riding, fighting with elephants—all these gave them agility and strength. From an observation and study of the people who may be said to be their descendants and who still exercise their bodies in all the above ways, we may infer that the ancient Tamils as a class were not prone to corpulency. They must have had slender but well-proportioned bodies. What their stature was like we can only guess. From the way in which they admired the tall stature and the majestic gait of the warriors and kings we can infer that the generality of the people was short. The colour of their skin must have been somewhat fair. The descriptions of men and women in the early literature show to their advantage in this respect. Two thousand years of an Indian sun, not to speak of the mixture of races, must have produced a great change in their normal colour.

Being great meat-eaters, they had iron constitutions, attaining good bodily strength and powers of endurance. Since their contact with the Indo-Europeans, race mixture was ever going on; but the Dravidian type was stronger and more persistent in the south than in the north, the degree of Dravidian characteristics becoming weaker as we go from the lower to the upper classes. Beauty of person, both among men and women, was admired. A tall and stately figure, with broad chest, high shoulders, strong and stout limbs was considered the acme of beauty among men. Similarly among women, a slender frame, the colour of molten gold, blue lotus-like eyes, high breasts, narrow waists, and soft words indicated the height of charms. The women were generally long-lived. The men were reckless in battle and invariably found an early grave. Probably the Greek writers had noted this, and, in order to explain the absence of old men among the people, believed the story of their early marriage and the premature death before they reached their fortieth year. It may be noted here in passing that the age for an ideal marriage among the early Tamils was twelve years for the girls and sixteen for the boys.

Their Pastimes

The Tamil people being a military race, a good military training was very essential. A considerable portion of their time was therefore devoted to the development of the body, and the learning of the use of arms, and this, irrespective of rank or class. Horse and elephant riding, archery, hunting, tilting, wrestling, and other martial exercises were fondly indulged in. They practised the use of arms by having the trunk of the Hyperathera Maringa (முருங்கை) as a target and aiming at a mark on it, as this tree is capable of considerable resistance without being deeply wounded (Pur. 169). They delighted in dancing, and a particular kind of it, a noisy hand-to-hand dance (துணங்கைக் கூத்து), wearing the tender palmyra leaves on their heads, was their special favourite

This was indulged in on all occasions of merriment. A ferocious war-dance (வெறியாட்டு) after a scene of revelry held in commemoration of the successful issue of a war, was also undertaken, as it was particularly pleasing to their war-god, Muruga. Throwing the dice (வட்டுப்பொருதல்) was a favourite indoor game. With the young Pandil (பாண்டில், நற்றிணை 3,) playing with dolls of alluvium (வண்டற்பாவை), swimming, diving, and bringing mud from the depths of tanks, wells and rivers to the surprise of their play-mates on the shore were very common. They also accompanied the tame elephants taken to the tanks for their baths, and enjoyed themselves by splashing water at them, when they were immersed in water. (Pur. 109). During festive occasions, pleasant excursions were undertaken to the seaside retreats where the people spent their time pleasurably in their temporary habitations (Chil: VI. 24). They played also a kind of foot-ball in the open. (நற்றிணை 324). Excursions to mountains where the natural scenery was especially good were also common. (Chil. XXV.) Ladies too spent pleasant times on the riverside in playing ball, picking flowers, or, in dancing and frolicking merrily.

Hunting was a favourite occupation among warriors. It kept the spirit of boldness and adventure alive in them, as well as the qualities of co-operation, coolness and fearlessness in the midst of danger. In their hunting expeditions they contrived not only to kill game by beating the jungle, but also took steps to catch them alive. Various devices were resorted to in order to trap animals. The pit-trap (Pur. 17) was the most ordinary one, widely used, and unwary animals which tread over a prepared trap like this would find themselves in the bottom of the pit in a trice, thus becoming prisoners for life. Tuskers captured in this way sometimes escaped imprisonment by filling the pit with sod broken by their tusks from the surrounding walls—thus making a way out for themselves. Stone traps were also in use for capturing tigers and lions (Pur. 19). The captured elephants were tamed by trainers, to be of service to man, the words used by them being Aryan (முல்லைப்பாட்டு 35.) Does this not show that elephant training was originally an Indo-European art which the Tamils borrowed from their brethren in their palmy days ?

Music and Musical Instruments

The Yal or Veena (யாழ், வீணை) was their principal musical instrument. They had also other musical instruments like drums, horns, conches with the spiral turned right-wise (குழல், கிணை, கிடுகு, கொம்பு வலம்புரி). The stringed instruments and drums as well as the tunes played on them, differed according to the nature of the land occupied by the people. They knew how to play several tunes on the Yal as different occasions demanded. During times of sorrow, they played a particular kind of tune (விளரி) which would move even stony ears. They advanced in battle array to the accompaniment of martial music. Finer music was always associated with gesticulation and dancing. They knew the 21 departments of music (இருபத்தோரு பாடல் துறைகள்),

and kept time while they were singing. A fuller account of them cannot be given in the present state of our knowledge. They were widely patronised during the period of Purananuru, but became forbidden arts during later days. How far Buddhism and Jainism helped to destroy this art as is popularly believed, remain to be sifted. Readers of *Chintamani*, one of the five great Tamil Kavyas, will note with pleasure and pride how the music was held to be a fine art worthy of being patronised and practised by the noblest of families. Needless to say that this was a Jain work of the eighth century. Somehow this art became associated during the days of the Hindu Revival with courtesans, and was considered their main accomplishment. The literature on music and dancing was once vast. Many precious manuscripts have been lost to us through mere neglect and even such as existed in the days of Adiyarku Nallar have not reached us. From his commentary on Chilapathikaram, we can glean a few facts about these forgotten arts, which may give us a sufficient idea of the high development they had reached in the classical period.

Manners and Morals

As a race which represented an advanced civilisation, we find in the Tamils all that is agreeable and ennobling. Their married life was superbly pleasant. The generality of the people led a chaste and simple life. The rich copied the pomp and the luxury of the kings, and kept concubines as an indication of greatness. State etiquette required the presence of courtesans in Royal courts, in spite of the high notions of morality and domestic felicity preached and practised by every class of people. Prostitution and concubinage were recognised institutions, and were not considered as a blot upon society. All connived at it, in spite of the strictures pronounced against it. Strange to say, all violations of marriage rules were attributed to the captivating charms of innocent women, and not to the wickedness and the brutality of the offending men. Cursing the fair sex for their charms is a favourite theme for songs among the Tamil poets.

Prince or peasant, man or woman, all were much addicted to liquor and meat. They had a high sense of honour, and were extremely truthful, honest, and trustworthy. Lying and flattery were unknown among them. Their outspokenness was something remarkable. They never suppressed their likes and dislikes, but freely gave vent to them regardless of consequences. Theft was a matter of common occurrence. Cattle-lifting and fighting after due warning was very general. Their view of life was happy and gay. They were cool even in the midst of dangers and calamities. As a warlike people they were terrible foes, but very generous to those who submitted to them. They seldom attacked a retreating foe. Deceit and treachery in war were foreign to them. Their one ambition in life was to show valour in the hour of trial and prove their loyalty to their king or chief. This was the mainspring of all their fervour and enthusiasm. Death

had no fears for them. In the battle-field they knew no alternative but death or victory. When kings and warriors thought that their honour was at stake, they coolly prepared themselves to die of hunger and starvation; and their friends did not hesitate to follow them even beyond the grave. This struck the foreigners as a strange custom. Herodotus says: 'when anyone of them falls into any distemper he goes and lies down in the desert, and no one takes any thought about him, whether dead or alive. (Ancient India by Macrindle, page 2. Herodotus).

The dead were disposed of in many ways. They were either burnt or exposed or buried. Funeral ceremonies at least among the higher classes of the dead, were performed scrupulously. The Greeks have recorded that 'the Indians do not rear any monuments to the dead, but consider the virtues that men have displayed in life and the songs in which their praises are celebrated, sufficient to preserve their memory after death.' Even though there were no storied monuments in the early days, a simple tombstone was at first raised in honour of heroes. Later on, finer stones with suitable inscriptions were placed and finally a temple arose round it. In the case of saints, kings and satis among the four castes similar storied structures came to be built in later times (Manimekalai VI. 54-60).

The Dravidians were communal in spirit. The joint family system with its holding of property in common is purely a Dravidian institution. It has outlived the clash of thousands of years of foreign institutions, which set up partition and separate life as the highest of human ideals. Even at the present time we find the system intact among the majority of the people who have fortunately escaped the glamour of individuality and public law courts. Corporate life was engendered under this system and each lived for the common good, practising self-sacrifice in the highest sense of the word.

They believed in good and bad omens, observed the flights of birds, consulted the astrologers as regards auspicious times and had faith in dreams. The rich too had very many comforts in life and luxuries too were not wanting. Their conveyances were elephants, chariots, horses, and asses, probably not the present breed that we know of. Bullocks were used for drawing carts and wagons. The *Mahabharatha* speaks true, when it says, that the Southerners were decked with garlands, had red teeth, wore cloths dyed in diverse colours and had their bodies besmeared with powder (Karna Parvam XII, XVII).

(To be continued)

The Budget and Education[1]

By the Rev. W. Meston, M.A., B.D., M.L.C.

The Budget of the Government of Madras for 1923–24 contains a considerable amount of information, conveyed through the medium of figures, regarding the education of this Presidency. If we deal with general, as distinct from professional, education, the facts range themselves naturally under the four heads of University education, Secondary education, Primary education, and Administration of education. The full figures will be found on pages 125–149 of the Civil Budget Estimate.

A. University Education

Under this head fall the three following allotments :

		Rs
(1)	To the University	3,00,500
(2)	To Government Arts Colleges ...	8,83,000
(3)	To non-Government Arts Colleges...	2,70,000

As regards the first of these items, it is satisfactory to note that the reorganised University of Madras is to begin with a substantial grant from public funds. It is impossible to tell definitely in what ways this amount of three lakhs will be expended, but the salary of the full-time Vice-Chancellor will be a first charge upon it, and there are bound to be a number of items of administrative outlay. In the course of the Budget debate the hon. the Minister mentioned several directions in which expenditure on the University even at this early stage might profitably take place, for example, the establishment of the long overdue department of Experimental Psychology, the provision of a school of Geography, the inauguration of various professorships and lecturerships on matters specially connected with India. There was one direction of expenditure which he did not mention, presumably through lack of time, although it is believed that he has it on his list. That is the suggestion that a certain amount of the three lakhs should be spent in making grants to the constituent and affiliated colleges to enable them to improve their libraries. During the past year college libraries have been starved through the withholding of Government grants-in-aid ; grants from the University to remedy this serious impoverishment would be welcome in itself, and it would at the same time serve as a proof of the new University's genuine interest in its affiliated mufassal colleges.

[1] A paper read by Mr. Meston at a conference of educational missionaries at Kodaikanal in May, and published by request.

When we turn from the expenditure on the University to that on Arts Colleges we receive something of a shock. There are in the Presidency nine Arts Colleges for men and one for women managed by Government. The cost of maintaining these, exclusive of building and repair, which finds a place in the Public Works, not in the Education, budget, is Rs. 8,83,000. This enormous sum (Queen Mary's College alone costs Rs. 92,800) is an advance of Rs. 1,35,500 on the cost of the Government Arts colleges for last year. Now when we look at what is included in the grants to non-Government Arts Colleges we find that the total amount of Teaching Grant assigned to them in the Budget is Rs. 1,30,000. That is to say, in the course of one year, the *increase* in the cost of ten Government Arts Colleges is greater than the total amount of grant given to the thirty-one non-Government Arts Colleges. The figures have only to be mentioned to make it beyond question that funds are not being administered so as to *encourage* aided education. If we look at what is being given to non-Government Colleges in addition to their teaching grants the case is even worse. There is provision for a grant of three-quarters of a lakh as building grants to aided institutions, a trifle compared with what is needed, and there is a sum of Rs. 40,000 for furniture, chemicals, apparatus, and books, roughly a grant of Rs. 1000 for each non-Government College to aid it in equipping its library, laboratory, and class-rooms. This hopelessly inadequate grant will be kept in mind by managers when they are called upon to add to their libraries and science equipment. The only other sum allocated to non-Government Colleges is Rs. 25,000 for hostel grant, a sum so paltry that one wonders at its insertion, all the more when it is remembered that merely as a supplementary item half that amount was voted for the purchase of a building to serve as a hostel for the Government College at Tellicherry.

The Budget then as far as collegiate expenditure goes makes it plain that money from public funds is being expended in an altogether disproportionate way, not in the manner which is calculated to secure the most satisfactory expansion of higher education.

B. Secondary Education

Part of the expenditure under this head is reserved. It consists mainly of expenditure on European Secondary Schools and on education in the Agency. From accounts in the press it might be supposed that the Legislative Council is loth to vote the money required for European education. This is not the case. The Council examines the expenditure under this head in a strict but not unfriendly spirit. What is needed is the presence on the Council of at least one member who is fully acquainted with the details of this form of education. In this year's budget debate the only point which was seriously contested was the failure of Government to indicate an advance towards concentration of schools, hopes of which advance had been held out at the budget debate of the previous year. It is

clear that concentration is called for. There are schools which, through isolation, are approaching bankruptcy, and the poblic purse is not long. Some scheme requires to be devised to save the education of an important minority from being seriously menaced.

As regards Indian secondary education the expenditure runs as follows:

(1)	Government Secondary Schools	Rs.	3,39,300
(2)	Non-Government Secondary Schools	,,	9,25,000
(3)	Local Bodies for Secondary Schools	,,	6,25,000

This allocation seems fairer than that under University Education. But an examination of it shows features which are quite as disconcerting. (1) The number of Government Secondary School is thirty-four, yet to maintain this small number three and one-third lakhs are required, and this is an increase of Rs. 68,000 over last year's expenditure. (2) The number of aided secondary schools is two hundred and ninety-six, or nine times the number of government schools, and the amount of teaching grant given to these is Rs. 6,85,000 or twice what is given to the 34 government schools, and it is less than the amount given last year by Rs. 10,000. Thus while the expenditure on government schools is on the increase that on aided schools is on the decrease. In reply to a resolution brought forward in the Council regarding the Grant-in-Aid Code, both the Minister and the Director of Public Instruction gave a most sympathtic answer. These of us who, in the interests of the country, believe in aided education would like to see that sympathy inserted in the budget. There is room for it. (3) The amount estimated for building grants shows an increase of only Rs. 60,000 over that given last year, making a total of a lakh and a half, a small sum when we remember that the arrears to be made up in regard to buildings which have not been proceeded with for many years goes far beyond that sum. (4) In the matter of furniture, apparatus, and hostel grants, less is budgetted for this year than last, a fact that is almost unbelievable. Local bodies complain that the grants made to them are insufficient. No one can say that they are large, but they compare favourably with what is given to non-government secondary schools.

C. Primary Education

On elementary education there is an expenditure of almost seventy-six lakhs, of which a lakh and a quarter goes to government schools, thirty lakhs to District Educational Councils, and forty-four lakhs to local bodies. This distribution seems fair, and the District Educational Councils have it in their power to make their needs known for all grades of primary education.

D. Administration of Education

It will be seen from the budget that Rs. 13,37,000 are spent on inspection, There is sometimes a readiness to criticise this amount of expenditure,

It seems to me that money spent on inspection is well spent. The Memoranda accompanying the Budget Speech of the Hon'ble the Finance Member introducing the Budget for 1923-24 draw attention to the fact that the merging of Inspectors and Assistant Inspectors in the single class of 'District Educational Officers' and the replacing of the Sub-Assistant grade by that of the Deputy Inspector of Schools together with the abolition of Supervisors is calculated to result in an ultimate saving of Rs. 87,000 per annum. Now on this I would make only two remarks. (1) Those who have spoken to me most strongly of their desire to see the expenditure on inspection cut down have confessed that this was due to their dissatisfaction with the work of inspecting officers that they had seen. There are bound to be differences in efficiency in a large cadre, and my own observation is that inspection is much better done than it was years ago. But if there is to be economy in the inspecting agency it will be false economy if it gives us a poorer quality of officer. (2) Is the re-organisation able to give us the number of officers sufficient for the adequate inspection of all grades of schools? There is now an inspector for each district, but to counterbalance this good is the loss caused by the elimination of supervisors. Formerly there were 195 sub-assistant inspectors and 214 supervisors, or 409 in all, belonging to the subordinate inspecting agency. Now this cadre is replaced by 257 deputy inspectors. When the Missionary Educational Council requested the Minister to sanction grants for supervisors no hope of the request being complied with was held out on the ground that there were departmental supervisors. The position now is that mission schools which, in the interests of efficiency, appoint supervisors, can draw no grant for them, and the department with diminished staff is unable to give to schools the supervision which is required. As matters stand, this is a distinct educational loss.

E. Summary

I may sum up what appear to me to be the points which the present budget emphasises.

(1) We need to press for a generous application and wide extension of the grant-in-aid system. The amount of aid is not adequate to present conditions. A careful extension of the system would go far to solve many questions which affect the education carried on by local bodies as well as by private effort.

(2) We need to press for a reconsideration of the whole system of management of schools and colleges by Government. That system served, and served well, a condition which is now passing. With the changed circumstances we require to consider carefully whether it is fitting that Government should continue to be the manager of certain institutions in the system as well as the controller of the whole system. And we further need to consider whether education would not be improved by the replacement of the present educational services by the organisation of teachers on a purely

professional basis. It would be well that we should have definite conclusions on this matter before the Services Commission arrives.

(3) The District Educational Councils continue to have a strong claim upon us because of their benefit to elementary education of all classes, and they call for the best men and women which the Indian Church and Christian missions can send as representatives. When the Secondary Boards are satisfactorily organised their claim will be no less strong.

(4) The whole position of the inspecting agency calls for our serious consideration. It is idle to economise here; the place for economies is the schools and colleges at present under the management of Government.

(5) A definite national educational policy, which recognises the responsibility of the State, and private and local effort as agencies of that policy, requires to be definitely recognised. This is needed no less in the interests of the Reforms than of the Indian Church.

Editorial Notes

A CABLE WAS RECEIVED BY THE PRINCIPAL announcing the death of our beloved Honorary Principal, the Rev. Wm. Miller, C. I. E., D.D., LL. D. on Sunday July 15th, in Edinburgh. The funeral was held from his birth-place in Thurso Park on July 20th. Commemoration services were held on July 20th, in the Anderson Hall, and in the College Church on the following Sunday, while the College was closed on July 17th, and 20th, as an expression of respect for Dr. Miller. As this number of the Magazine was nearly through the Press when the word came, we must reserve our words of appreciation regarding his life and service for the October number. At present our feeling of loss is so profound that we find it impossible to give it any adequate expression.

FROM THE POINT OF VIEW OF THE COLLEGE, the most important event of the year in educational circles is the coming into existence of the reconstituted University of Madras. We are happy in being able to present to our readers an illuminating article dealing with the Madras University Act, from the pen of Mr. Meston, our acting Principal. The first act toward the constitution of the new University was the appointment of the new full-time Vice-Chancellor. It was with mingled emotions that we learned that the lot had fallen upon our own Principal, Rev. E. M. Macphail, C.B.E., D.D. While we extend our felicitations to Dr. Macphail on this recognition of his rare gifts of leadership and administration, we feel that the University is to be congratulated still more on its good fortune in securing his services. The first days of the University will be fraught at once with opportunity and danger, and no fact will give the people of this Presidency greater assurance as to the success of the new venture than the knowledge that Dr. Macphail is at the helm. As a College, we confess to an experience of pride that the Government should have come to us for the best available man for the Vice-Chancellorship. At the same time we do not conceal our sense of loss in the resignation of Dr. Macphail as Principal. For thirty-seven years he has brought to the College the rich combination of strong personality and efficient teaching. In later years there has been added to these the gift of administration. Dr. Macphail will be sorely missed both as Principal and Professor. But it greatly mitigates our sense of loss to know that he is to be still in Madras, occupying the foremost position in the new University.

ONE OF THE MOST RECENT ADDITIONS to educational administration in this Presidency is that of District Secondary Educational Boards, the constitution of which is defined in G. O. No. 24 of January 5th 1923. The idea is a further application of the scheme already in force for elementary education. We desire to take the opportunity of recording our appreciation of the efforts of Government to make education more democratic and efficient, and feel sure that the newly constituted Boards will be a step in that direction. At the same time it must

be admitted that in the actual working out of the scheme there are certain defects which might have been avoided if the scheme had been brought into force in the month of August instead of in the month of May, while there other defects inherent in the constitution of the Councils themselves. In the majority of cases even the preliminary announcements did not reach the schools concerned until after they had closed for the summer vacation, so that large numbers of managers and teachers who resided at a distance from their schools were unable to make satisfactory arrangements. It is true that later Government arranged so that voting could be done away from headquarters. But that did not cover the defect due to the inability of arranging for consultation regarding the voting with a view to obtaining the best collective wisdom. Had the scheme been made operative during one of the school sessions, such a defect could have been overcome. Some of the other defects inherent in the scheme itself are perhaps more serious. For example it was not known until after the electors were chosen that nominees for the Boards must be chosen from among the electors. Furthermore, it seems unfair that each management should be entitled to only one elector, regardless of the number or importance of the schools coming under their jurisdiction. In Chingleput, e.g., there are seven Mission schools with 2571 pupils, and five non-Mission aided schools with 1990 pupils, while under the existing rules the former group have only two electors and the latter four. This difficulty is accentuated by the fact that in some districts different groups vote in one constituency, so that it is quite possible for the representatives of the minority to outvote those of the majority, and elect all the members. A good deal of confusion has existed in the minds of District Educational Officers as to the working of the scheme, as a result of which instructions have been repeatedly changed, and eventually important interests have lost out on technicalities. In North Arcot one elector was nominated by four people, but no nomination was seconded as a result of which he was barred. It is unfortunate that a scheme having such good possibilities should have been launched without a more thorough consideration of all the interests concerned. We sincerely hope that Government will see the wisdom of remedying the defects at once, and so avoiding breakers ahead.

There is an exceedingly wide diversity of opinion in regard to the facts about the prohibition of alcoholic beverages. This is undoubtedly due to exaggerated statements from both the anti-temperance and the prohibitionist parties. It seems to be a public question concerning which it is most difficult to secure dispassionate information. It must be admitted that the prohibition press is sometimes guilty of glossing over ugly facts. The attention of the world is, of course, centered upon the United States of America, which by congressional action made prohibition a part of the national constitution. It is a fact that in parts of the country, particularly the larger cities such as New York and Chicago, there has been a wholesale breaking of the law. Prohibitionists are tempted to minimize this, and the anti-prohibitionists to exaggerate it. It appears to be a much saner policy on the part of both to recognise the facts. After all the prohibition party has everything to gain in dealing with a difficult situation by acknowledging it. And the opponents are really advertising their own disrespect for law and order

in giving publicity to the breaches of the law, for they must admit that, if the law of the land be broken, it is not broken by those who favour it. We would like, however, to make an appeal for fair play. Here is the case of a great democracy making an experiment in public morality. Mistakes may be made. Perhaps the patience of some who do not see eye to eye with the measure may be put to the test. But surely it is tremendously significant when a great nation recognises its responsibility in a social and moral situation, and has the courage to deal with it. There is no ground for criticizing it as an emergency war measure. Thirty-three states were dry, and large sections of the remaining states had enacted local option even before the national amendment was introduced. A recent enquiry in 158 Universities and Colleges disclosed that 138 are decidedly in favour of continuing prohibition, while only 8 were opposed; 142,000 students favoured, and 16,000 opposed prohibition. Moreover the American experiment is not without parallel. Did not Russia virtually enact prohibition, when by imperial decree vodka was tabooed? And Canada with the exception of Quebec has tried it, and no less a statesman than the Premier of the Dominion has testified to its success. The prohibition of the manufacture, sale, and transportation of intoxicating liquors for beverage purposes is an "insurrection of justice on behalf of the weak.' Those who protest against it on the ground of the infringement of individual liberty must be reminded that morality and liberty are both social concerns, and that the welfare of society is the larger consideration. It inspires both hope and courage to find nations facing moral situations, and willing to deal with them heroically. If the United States believes that Prohibition will help to make the nation safe for democracy, it is only fair that the rest of the world should give her a fair chance to prove her case.

What Men Think

Pattern Ideas

'Culture or civilisation,' says Professor Ellwood in the March issue of *The Journal of Religion*, 'is made up of acquired habits and, on its inner side, of mental patterns—patterns of action in the minds of individuals. These mental patterns are the standards by means of which the members of the group control their behaviour and develop their culture.' Every new tool is the materialisation of a pattern idea—of some way of achieving things which has been more or less projected in imagination. And the same may be said of the formation of institutions, that is, of sanctioned and systematized ways of living together. But 'while the patterns for the making of tools may be set immediately before the young, and their relative correctness tested by actual experience, the pattern for an institution has to be received more or less upon faith, and the trial of its utility must be the work of years. The "pattern ideas" associated, therefore, with forms of the family, of government, of industry, and of general social organisation must have attached to them peculiar sanctions. These sanctions are usually of a magical or religious character. And a supernatural sanction attached to any idea makes it very difficult to change.'

How do men get these mental patterns? Of the primitive social patterns one chief source was primitive occupations. Hunting was the main occupation of one half of the primitive community, namely, the men, while the women had as their main occupation the care of the children. Hence 'if, with any justice, we may trace the patterns of modern war, business, politics, and science to primitive hunting patterns, we might with equal justice trace the patterns of modern home life, education, philanthropy, and religion back to the primitive child-care pattern.'

The Anthropological Significance of Christianity

The phase of human development commonly called 'barbarism' is not the earliest stage recognised by modern anthropologists. For the explanation of its state of constant inter-tribal warfare it presupposes that economic or other changes have forced into unaccustomed contact social groups which, through long isolation, are profoundly suspicious of and hostile to strangers. 'Primitively, there was of necessity little war between human groups, because the world was scantily populated, groups were widely scattered, and their struggle was largely with the forces of physical nature. Paradoxically, these nature peoples, who seldom engaged in war but lived mainly by hunting animals and gathering wild fruits, we have called 'savages,' although it is certain that they had few, if any, of the ferocious and predatory traits which were later developed in human groups in the stage of barbarism. It is easy to see how these predatory traits developed. With the

improvement of tools, and especially with the first beginnings of the cultivation of the soil, food supply and so population would increase, human groups would no longer be so isolated, but would be in more or less close contact. During the period of isolation, however, the attitude of human groups toward one another had become one of suspicion and distrust. Kindliness and mutual service had been limited in their development to the small, face-to-face groups. The later multiplication of groups and of contact between groups along with the limitation of natural resources, especially of food supply, accordingly brought conflicts between groups. The groups which encroached upon one another regarded one another as enemies, and not as human enemies, but as like the other enemies in the animal world below them with whom they were accustomed to struggle. Hence the predatory and hunting attitude which man had developed through long ages of struggle toward the brute world became turned against his fellow-man. The hunting pattern became the approved pattern of conduct for all relations with strange groups.'

'Barbarism,' then, although it sounds paradoxical to say so, is to be regarded as a new type of culture with new standards by which the genuinely primitive cultural type was replaced. The primitive kindliness, sympathy and love may still have dominated more or less the primary or face-to-face groups of men, but in all the external relations of larger groups the new culture was predatory in type. Nevertheless the 'pattern ideas' set by the primary or face-to-face groups were not rooted out. 'A life of predatoriness, or even a life with power and pleasure as its ends, has its drawbacks, and as soon as men reached a stage in which there could be some thinking upon the problems of life, this became manifest. It became clear that the patterns for human living set by the primary groups were, after all, the only ones which men could follow with satisfaction to the end.' Accordingly, as soon as written literature began to become common, the voice of protest made itself heard. It was no historical accident that the first millennium before our era saw the birth of new religions all over Asia. Zoroastrianism, Confucianism and Buddhism must be regarded, says Professor Ellwood, 'as gropings toward a new and better social system than any which barbarism or early civilization had afforded.' And the early Christian movement also deserves to be considered from this point of view. 'It was one of a series of attempts to transcend the ethics of barbarism, which, as we have seen, was essentially predatory as regards national, tribal, and class conduct and even in part as regards individual conduct, and to replace this ethics by a universalized, social humanitarian ethics.' It was far superior, Professor Ellwood considers, to the preceding attempts; and he attributes this superiority not only to its having been the latest such attempt within the period of classical antiquity but still more to its relationship to Judaism, out of which (although not without stimulus from other advanced oriental religions) it directly came. For 'Judaism, from the standpoint of the sociologist, may well claim to have been a generalised type of social religion fitted to produce a still higher type. This was because the ancient religion of the Hebrews had preserved to a remarkable degree the patterns of primary group life.' It had idealised and spiritualised the values of the primary groups, especially the family. 'It only needed to transcend the bounds which it had set for itself by the narrow conception of kinship, as limited

at most to the nation, to become a universal and so a humanitarian religion.' Even before Jesus began His ministry, much had been done by the prophets to burst the shell of Jewish nationalism, but it was His religious genius which brought all these humanitarian tendencies 'to a focus, so that they produced, as it were, the white heat of a new religion' whose outstanding feature was this, that it made family affection 'the type and pattern for all relations between men and between God and man.'

The Vicarious Principle

Another article in the same Journal develops a thesis very germane to the foregoing. It is by Professor J. M. Powis Smith on 'The Ethical Significance of Isaiah, Chapter 53'; and, keeping to the terminology we have been using, we might express its thesis by saying that this famous chapter is essentially an expansion of the 'pattern idea' of the family, into the conception that the world is to be regarded as a family of nations. It represents Israel, as one member of the human family, suffering for the sin of the entire family group.

Our current individualistic morality is anything but friendly to the conception of vicarious penalty. It asks how a just God could be satisfied to lay the penalty for the sins of other nations upon the shoulders of Israel, which was relatively innocent as compared with the real sinners. But this is not entirely a modern question; 'the contemporaries of Deutero-Isaiah must have asked it too.' For the ironical proverb to which Ezekiel refers, viz. the fathers have eaten sour grapes and the children's teeth are set on edge,' reflects an individualistic reaction against the then orthodox teaching that the Exile was a punishment for the sins of Manasseh, and it is unlikely that the generation of Deutero-Isaiah's day would be any more ready to receive the doctrine that Israel was suffering for the sins of her oppressors. Deutero-Isaiah, however, 'was not the man to shrink from daring thoughts or to keep within conventional lines. He had come forward possessed with the idea of Yahweh as a world-God and was interpreting the career of Cyrus as that of the Anointed of Yahweh . . . This was a bold innovation in all conscience. But the thought of a world-creating and governing God does not lie very far from the idea of a world-family. And *this* was the great conception that lay behind the idea of the Suffering Servant. This great prophet and dreamer took the old conception of social solidarity that was still operative within national lines and applied it to the world-situation as a whole. All nations alike were the product of Yahweh's creative energy. All therefore constituted one great world-family with a great common Father . . . Just as in the ordinary family one might sin and all suffer the consequences; or one might, on the other hand, suffer for the sins of all; so in the great world-family. Israel had been chosen of God to bear the punishment necessary for the expiation of the sins of the whole human race.'

This is a suggestive idea for the interpretation of Isaiah 53, and Professor Smith leaves it at that. But his readers' thought will refuse to stop there. Has the idea, they will ask, any modern value for us theologically? In a modern

affectionate family the close inter-connection is so prized that one member is willing to suffer for another member's sake any consequences which may be the intrinsically necessary price of that inter-connectedness. Accordingly if we have reached the ethical elevation of regarding the whole race as one family, we shall be willing to suffer vicariously, provided that the suffering is intrinsic consequence and not an artificial or superimposed punishment. What the modern mind has difficulty with is not the idea that Christ *suffered* vicariously, but the idea that this suffering was a *punishment*—something the necessity of which was not historical merely but due to the requirements of a Divine judicial system. If our reason is to be reconciled to the concept of a vicarious atonement we need, therefore, not only to welcome the idea of such a close human inter-connectedness as shall entitle the race to be regarded as one family, but also a synthesis of the ideas of historical or natural necessity and moral necessity.

What is Intelligence?

Intelligence is a word which has long been current in popular circles, but concerning which very little attempt was made to achieve an accurate definition. It was recognized as a psychological term, yet remarkably few books on psychology had anything to say about it. A new interest has been aroused in it, however, with the introduction of psychological tests of mentality. But even then psychologists went ahead with the task of measuring intelligence without any accurate knowledge of what was being measured. For this procedure there was a good present in the physical world, electricity having been used and measured for years, in spite of ignorance as to the real nature of electricity.

We are now entering upon a second stage of the task of dealing with intelligence, viz., that of endeavouring to understand its nature. *The Journal of Educational Psychology* conducted a symposium in 1921 to which a number of psychologists contributed, each one giving his views as to the nature of intelligence, as he interpreted the results of mental testing. The wide diversity of opinion expressed in these contributions is indicative of the vagueness with which the term has hitherto been used. Macmillan & Co. have just published a work by Professor C. Spearman of the University of London which is perhaps the first critical work dealing with this problem: *The Nature of 'Intelligence' and the Principles of Cognition.* In this volume the author takes exception to the theory held by Professor Thorndike and several other psychologists, that there are several abilities which can be measured, but that there is no such thing as 'general intelligence.' The holders of this doctrine call it the 'sampling theory' by which they mean that we can take samples of mental abilities and test the various performances involved. Against this theory Spearman lays the charge of reviving the old exploded 'faculty psychology,' a charge to which there is little doubt that those who hold to the 'sampling theory' would plead 'not guilty.' On the constructive side, Spearman makes use of the results of mental testing to describe intelligence as a complex, a cognitional complex, involving a number of qualitative and quantitative principles. The qualitative principles are:

(i) the apprehensibility of experience, (ii) the eductibility of relations, and (iii) the eductibility of correlates. The quantitative principles are five, viz., those of (i) general energy, (ii) retentivity, (iii) fatigue, (iv) conative control, and (v) primordial potency. These quantitative principles are involved in the processes of reproduction, disparition, and clearness-variation. Together the qualitative and quantitative elements result in the development of the mental characters of intensity, determinateness, and speed, which are the characters of intelligent processes. The work of Spearman is not such as can be readily criticized, as it breaks virgin soil in the psychological field to a considerable extent. The theory will have to be tested by the tests themselves.

CORRESPONDENCE

To the Editor,

THE MADRAS CHRISTIAN COLLEGE MAGAZINE

DEAR SIR,

When an author has had the opportunity of developing his views in a complete volume, it is apt to appear ungracious if he is unwilling to let pass without challenge the very few pages which a reviewer has at his disposal for the expression of a different tendency of thought. But the position wears a somewhat altered complexion when the reviewer has been so unfortunate as to convey a misleading impression of the views and tendencies of the book he is criticizing. In such a case, by breaking silence an author may sometimes be serving interests wider than his own.

It is in this spirit that I crave space for a mild protest against the strange reading of the standpoint and spirit of my recent *Cunningham Lectures* which is offered in the very kindly but severely critical review contributed by Mr. Corley to the April issue of this Magazine. It would be easy to deal with his strictures *seriatim*, but I will confine myself to a disclaimer of the attitude toward miracle-working and toward science which, to my great bewilderment, Mr. Corley appears to discover in my book.

If I understand my reviewer aright, it seems to him that I hanker after miracles—that I would fain work miracles myself, or see them worked by others, because I impatiently ('This book' he says, 'breathes impatience') desire a short cut by which the world may escape from its defects and miseries, and further that I either do not recognize, or have neglected to probe, the deepest ground of the difficulty which Christians feel about miracle-working. Now in actual fact an attitude such as this is so alien to my engrained habits of thought that if I believed my book to be calculated to induce such an attitude in the average competent reader, I should have to consider seriously the possibility of withdrawing it from circulation.

Miracle-working is and has been of interest to me, not for its own sake, but as a test-case of a conception of the moral and spiritual freedom of the Christian which I have learned from the New Testament. There are two presuppositions on which I find it intellectually necessary to proceed: (1) that if 'natural law' can accurately delimit the possibilities of the spiritual realm, our Christian preaching is vain and we are yet in our sins; (2) that it is impossible to deny the strict validity of 'natural law' in the spiritual realm except upon grounds which impugn its strict validity in the material realm as well. It has always been mainly for this reason that the message to which I have been unable to shut my eyes in the New Testament—the message that power to work even physical miracles

upon fit occasion is a permanent privilege of the Christian life—has been welcome to my intellect. I welcome the idea of the possibility of physical miracles because, if they are ruled out, I cannot believe in the possibility of spiritual miracles or in the reality of Divine 'grace.' But what I intellectually welcome is their *possibility* only. All the engrained habits of my thinking predispose me to minimize the frequency of occurrence of the 'fit occasions' for physical miracle-working.

This brings me to the charge of 'impatience.' My book does not 'breathe' impatience: it *preaches* impatience which is a very different thing. It preaches it to the reader, but very especially it preaches it to myself; for my predominant instincts and mental habits incline me to the view that good is ordinarily to be won rather by bearing evils than by fleeing from them, and that even the worst of life's tragedies are brimful of a Father's tenderness.

Why, then, does the book preach impatience? Simply because I find it in the New Testament, and in the very preaching of our Lord Himself. 'Impatience,' of course, is not the proper word. Rather should I say that I find the New Testament to be far less pathetically acquiescent in tragedies than I and others are apt to be, and far more buoyantly confident of the infinite resourcefulness of One who hates all pain and loss. The New Testament forces me to regard as only a dangerous half-truth the view which I have above confessed to be the one to which my instincts and mental habits predispose me. Under this head, then, Mr. Corley's real quarrel is not with me, for his tendencies of thought are mine; they are what I grew up in and find it most difficult to escape from. His quarrel is with what, in spite of my inherited tendencies, I seem to find in the New Testament. Do what I may, I cannot escape the perception that the ethos of the New Testament, in respect of disease and other ills, is different from and superior to that which is natural to me and prevalent in the modern Church.

As a further ground of complaint my reviewer suggests that I either do not recognise, or have neglected to probe, the deepest ground of the difficulty which Christians feel about miracle-working. What this deepest ground may be, he does not quite explicitly state. Nevertheless, but for one awkward fact I should have quite unhesitatingly inferred from his pages that what he himself regards as the deepest ground of difficulty is that which might be expressed in the questions: 'Ought we to want to see, or to work, miracles? How can real faith, of which humility is always an inevitable product, rightly presume to ask God to depart from what experience apparently shows to be His chosen principles of world-government?' As I have remarked, I should have quite unhesitatingly inferred this to be Mr. Corley's meaning but for one awkward fact. That fact is that the difficulty which these questions express has been for myself, for the last fifteen years, the main practical problem in connection with petitionary prayer and miracle-working and that my book—explicitly in certain passages, and by implication from cover to cover—purports to be a systematic exploration of this very problem. If this be not the deepest ground of the difficulty which Christians feel about miracle-working, then my reviewer's accusation is probably correct, for I cannot imagine a deeper.

The only other point on which I will touch is the complaint that my 'attitude to science throughout is unfortunate, and likely to lend colour to the charge of obscurantism which is often levelled at the Church'. That is an opinion to which, of course, my reviewer is perfectly entitled if, as would appear, he does not accept the type of Idealism to which my own philosophical studies have constrained me to adhere. Nevertheless it is a well known philosophical position, in support of which present-day thinkers of the first rank might be cited; and its clearest and most thorough-going exponent is Croce, who scoffs at the very idea of the miraculous. It appears to me, therefore, quite unfair even to seem to countenance the suggestion that the argument of my philosophical chapters is an 'attempt to discredit science in the interest of miracle.' Of the book under review the philosophical chapters are, far and away, the least original, being merely an exposition, as brief and untechnical as I could make it, of the bearing upon miracle (or, more precisely, upon what I claim to have proved to be the N. T. conception of the supernatural) of a current philosophical theory which is entitled to respect, and my adhesion to which is based on quite general grounds. Moreover I cannot admit for a moment that the carefully defined status which this philosophical position accords to the scientific enterprise amounts to a 'discrediting' of science; and had my reviewer possessed the advantage of a completer prior acquaintance with the position which he criticizes, and of the bearing of which my book offers so rapid and slight a sketch, I cannot but think that he would have realised the inappositeness of the principal criticisms which he levels against it, and would have conducted his assault upon it with more circumspection.

I am, Sir,

Yours etc.

A. G. HOGG.

Book Reviews

The Private Diary of Ananda Ranga Pillai from 1736 to 1761. Volume viii. May 1751—December 1753. Edited by H. Dodwell, M.A., Curator, Madras Record Office. Government Press, Madras: 1922.

This, the eighth instalment of the translation of Ananda Ranga Pillai's Diary, covers a short period of only two years and a half, but that period is one of the greatest moments in the history of the development of the British power in India. At the opening of the period it seemed as if Dupleix's great schemes were going to be completely successful. With the aid of French soldiers Chandâ Sâhib had defeated and slain Anwar-ud-dîn, the Nawâb of the Cárnatic, at Ambur and had seized his position. Nâzîr Jang, the Subahdar of the Deccan had also been slain, and by Dupleix's orders Salabat Jang had been made Subahdar by Bussy, who accompanied him with his troops to Hyderabad. The only opposition came from Muhammad 'Ali, later known as Walajah, the Nawâb of the Cárnatic, a son of Anwar-ud-dîn, who still held out in Trichinopoly and claimed to be his father's successor. Dupleix himself had received a sanad from Salabat Jang, conferring upon him the governorship of the country between the Kistna and Cape Comorin, and we learn from the Diary that if his plans had been successful he had intended to make himself the real Nawâb of the Cárnatic, and to compel Chandâ Sâhib to be satisfied with a Jaghir, or in the event of his proving refractory to ship him off to Mecca.

The rock on which Dupleix's plans were shattered was the English East India Company in Madras and especially a junior member of it called Robert Clive. There had indeed been peace between France and England since the Peace of Aix-la Chapelle had put an end to the War of the Austrian Succession in 1748, and Fort St. George had been handed back to the English, but the English company had abundant evidence that the old hostility remained and that Dupleix's schemes included the destruction of its commerce and of its influence. One little plan referred to in this and a previous volume was the attempt to turn the English out of St. Thomé. Chandâ Sâhib appointed as Amaldâr of St. Thomé a relative of Madame Dupleix. The English replied by getting a grant of St. Thomé from Muhammad 'Ali, and deporting Noronha, the new Amaldâr. It was not surprising then that when the English awoke to the seriousness of the situation caused by the existence of a Subahdar and a Nawab who were the creatures of Dupleix and whose authority could be used for their destruction, they decided to support the rival Nawab and to assist Muhammad 'Ali in whatever way they could. This volume of the Diary, therefore, is of special interest as dealing with the period which witnessed the gradual collapse of the great schemes of Dupleix. It records—though without making very much of it—the capture of Arcot by Clive, the surrender of Law with his army at Srirangam and the subsequent murder

of Chandâ Sâhib and the fighting that went on round Trichinopoly in 1753. One of the last entries in this volume is the account of the failure of the attempt of Mainville to capture the Trichinopoly Fort by surprise, an attempt which very nearly proved successful. Dupleix felt this failure very keenly, and vented his anger on Pâpayya Pillai when he learnt the news from him. Pâpayya had supplanted Ranga Pillai as the chief purveyor of information, and was consequently intensely disliked by him.

Ranga Pillai expresses his surprise that Pâpayya for the sake of his position would put up with kicks and blows from Dupleix, but as he mentions that Pâpayya was the descendant of a beggar family in Madras he evidently thought that his mean-spirited conduct betrayed his origin. Ranga Pillai himself still was in the habit of flattering Dupleix in the most gross manner for he records many of his speeches to the Governor, but it is plain that he no longer believed in the good fortune of Dupleix and was expecting that disaster would come. This feeling was no doubt intensified by the fact that he no longer possessed the influence with Dupleix that he once had, and that Madame Dupleix, whom he hated, really, had the chief say in everything. Altogether things were looking very bad for Dupleix towards the year 1753, and Ranga Pillai recognised that the clouds were gathering over him.

The Diary is interesting not only for the information it gives about Dupleix and Pondicherry, and for the side lights it throws on important historical events, but also for its picture of social life in India in the middle of the eighteenth century. It cannot be said that that picture increases one's regret for not having lived in the 'good old times.' Corruption and violence were rampant, and the absence of any strong central government enabled armed bands of adventurers to plunder the farmers and the merchants with impunity.

Mr. Dodwell contributes an interesting preface and a number of instructive notes. From one of them we learn that Ammaya Naikan, one of the Poligars to whom, at the bidding of Dupleix, Ranga Pillai wrote letters warning them against giving any assistance to Muhammad 'Ali, is the gentleman after whom is called the place which used to be well-known by name to many holiday makers in Southern India—Ammayanaikanur. We regret to learn from the Introduction that the original transcript of the Diary was practically destroyed by the cyclone which did so much damage at Pondicherry in 1916.

E. M. M.

Theosophy and Christian Thought. By Rev. W. S. Urquhart, M.A., D. LITT. London: James Clarke & Co., 1922. Pp. 223. 6*s*. net.

Dr. Urquhart is already recognized as a thinker of no mean order. The treatment of this, his latest, subject is marked by the qualities we have learned to expect: the philosopher's dispassionate calmness, the absence of any trace of sectarian rancour, the unprejudiced recognition of goodness and truth wherever found, and a power of incisive criticism and cogent argument. We have here a thoroughly critical, and, at the same time, genuinely sympathetic discussion of theosophy. To some of the things which Dr. Urquhart scarcely mentions or

passes over in silence, those who know the history of Theosophy in Madras will feel that he has been something more than fair, even generously chivalrous.

Dr. Urquhart gives a brief exposition of the main doctrines of theosophy. He traces its historical origins and growth, showing its debt to various philosophies both western and eastern to the Neoplatonism and Gnosticism of the Graeco-Roman world, and to the ancient systems of Indian thought, the Vedānta, Sānkya and Yoga. In more detail he discusses the relation of Theosophy to Christianity both in the early Christian centuries and at the present time. Of the three professed aims of organized Theosophy to-day, *viz.*, to form the nucleus of a universal brotherhood, to encourage the study of Comparative Religion, and to investigate the unexplained laws of nature and the powers latent in man, Dr. Urquhart's contention is that the first two are not in any sense specifically theosophical, and that the third, which is specifically theosophical, lives on the reputation of the other two.

In this third and specifically characteristic aspect, Urquhart regards theosophy as a mystical reaction from mechanism and dogmatism, deprived of the value that it might have had, and may still have, by its submission to occultism. Theosophy is accustomed to pride itself upon its undogmatic and scientific character. But Dr. Urquhart shows in perhaps the most valuable chapter in the book, the chapter on the relation of theosophy to science, philosophy and religion, that in actual practice it is neither undogmatic nor scientific. The wondrous system of cosmology which theosophy propounds, is, for the vast majority of persons, a dogma, a statement which is beyond our power to test and which must be accepted on authority. The evidence is available only for a chosen few, accepted for special esoteric training and instruction, and upon them the charge of secrecy is laid. For a certain type of mind this atmosphere of esoteric mystery has an attraction, but most people will agree with Dr. Urquhart that theosophists must get rid of occultism and place all their cards upon the table, if they wish to establish their claim to truly scientific procedure, and receive the serious consideration of educated men.

In India to-day the pathway of theosophy is made easy because of its many affinities to India's ancient faiths and philosophics. Many minds are lulled and flattered into an uncritical attitude of acceptance. It is too lightly hoped that in theosophy there is an adaptation of ancient faiths, time honoured and full of sacred memories, which will stand us in good stead to-day. An unsentimental, rationally critical examination of theosophy, such as Dr. Urquhart's book will help any educated person to make, will probably result in the conclusion that in so far as theosophy is non-esoteric it is not specifically theosophical, and that in so far as it is esoteric, it is unscientific, a product, of the imagination uncontrolled by reason.

G. M.

Alexander Duff, Pioneer of Missionary Education. By William Paton, Acting Secretary, India National Missionary Council. London: Student Christian Movement, 1923. 234 pp. 5*s*.

The present is an opportune time for the publication of this volume, for India is being faced again to-day with at least one of the problems Alexander

Duff had to face in 1830. Whatever may be our opinion now about the advisability of education in English or Vernacular for present-day India, no one can read this book without being convinced that in 1830 no other course was possible than the one Duff chose.

Duff was a pioneer of higher education in Calcutta. His ambition was 'to extend to all who would come the benefits of a Christian education in the sense of instruction in all truth, with the Christian revelation at its centre, related to the whole and inseparable from it.' Though he believed that no language but English could be the medium of higher education, he insisted that all students in his college should have a thorough knowledge of Bengali, and he did much to further vernacular education.

He held that purely secular education for India would be productive of spiritual barrenness, would set free mighty destructive forces, but would not build up, and yet he never hesitated to add to the curriculum any subject that might be labelled purely secular, for he believed in the harmony of all truth. This belief, his intense earnestness, and his fearlessness in carrying out his plans in the face of all opposition, combined to make a personality which captured the imagination, and evoked admiration from all classes and countries.

In his advocacy of female education in India, of missionary training, of a missionary professorship in the Divinity Colleges, Duff was in advance of his times, and showed great foresight as to the development of Christianity in India. Yet in some ways he was strangely narrow. His early evangelical training made him intolerant of any new ideas as to the origin or structure of the Bible, especially when put forward by ministers of the Church.

Mr. Paton has not only given a very fair and clearly written account of the personality and work of Alexander Duff, but also a very clear statement of the problems facing educationists both in 1830 and at the present time.

E. M. B.

Robert Henderson. By J. Sinclair Stevenson, M.A., B.D. London: James Clarke & Co., Ltd., 1922. Pp. 160. 3/6.

Robert Henderson, the story of a missionary greatheart in India, is a book which will appeal to a very large circle of readers, of all ages and interests.

The early life of Robert Henderson was spent in Ireland, in Co. Antrim, not far from the spot made famous by the conversion of St Patrick, then a captive slave. His school career was interrupted by his father who wished him to be a farmer, but at the age of 16, after two years on the farm, he returned to school, and both there and at College, proved to be a brilliant student.

After several years in a home charge, he went out to the Punjab in 1890, and was immediately immersed in work, at first in charge of a boys' High School, where his sympathy with boys made him a great success. He was in the Punjab, when the work of the Irish Presbyterian Mission was expanding rapidly, and he seems to have been well fitted for the increasing responsibility which came with the growth of the work.

Perhaps the two things for which he is best known as a worker, are the greater number of buildings he erected, and the farm colonies he started, and doubtless the two years he had spent on his father's farm stood him in good stead there, but he seems to have been equally capable in all kinds of work, whether touring, organising evangelistic weeks, starting Industrial Schools, running Christian Endeavour Societies, organising famine relief work and funds, or taking his part in municipal affairs. Surely no one more deserved the Government medal pinned on his breast before leaving India, broken down in health.

He not only worked hard himself, but got others to give their best, largely by using the method of praising wherever praise was possible. He had an intense sympathy with all classes, and to the end of his life, kept his boyish love of pranks. Everyone at a conference could tell where Henderson was by the noise and laughter. What could dampen a man who wrote of a bicycle accident: 'Though I lost some skin by dismounting in a hurry, I was able to sing,' The bike's all right'!

The book is written most graphically and sympathetically, and the work is never allowed to obscure the man. We feel we could have enjoyed more extracts from Robert Henderson's letters, but the book, as it is, is most interesting and easily read.

E. M. B.

English Critical Essays XVI–XVIII Centuries. Edited by Edmund D. Jones. Oxford University Press, 1922. Pp. 460.

In 1916 Mr. Edmund Jones edited in the World's Classics a volume of Nineteenth Century Critical Essays. The preface held out the hope that a companion volume might appear in the same series, to deal with Renaissance and Neo-classic criticism. This hope has now been realized. In this volume there is a selection of essays, comprehensive enough to enable the reader to follow the main movements and countermovements of English critical thought from the time when Sidney in his 'Defense of Poesy' introduces Renaissance Aristotelianism into England, on through Neo-classicism up to the time when the first streaks of the Romantic dawn begin to appear. These two companion volumes thus present in a delightfully convenient form the means for studying at first hand the course of English literary criticism.

G. M.

The Coins of India. By C. J. Brown, M.A. Calcutta: Association Press and London: Oxford University Press, 1922. Pp. 120.

This is one of the best volumes so far published in that valuable series, *The Heritage of India Series.* The science of numismatics is in India a most useful aid to the solution of some historical problems as it has been elsewhere. Indian coinage has furnished a clue to the extent and the dates of foreign influence. According to the author, early Greek models were followed for eight centuries. During the period from 200 to 25 B.C. Greek potentates ruled in a part of the Punjab as well as Afghanistan, and the obverse side of the coins which they struck

bear Greek inscriptions, while the reverse side bears inscriptions in an Indian language. By means of the key obtained from the transliteration of the names of kings on these coins, archaeologists have been able to read inscriptions on monuments which hitherto were undecipherable.

Again the Period of Roman influence is made clearer by means of the coinage of the time. The so-called Saka era founded by Kanishka in A. D. 78 was marked by commercial intercourse. Exports from India were paid for in Roman gold, and this resulted in some of the Roman coins being put into circulation as well as in them serving as models for the Indian princes.

There is in this study also much information which is valuable for the history of Indian religions. For example, we have in the coins which bear Buddhist symbols unmistakeable evidence of the preponderating influence of that faith during the period of Roman influence. There are various coins with representations of Buddha, of different Hindu deities, of Iranian, and even of Greek gods. There are twelve plates in the book with excellent illustrations of a large number of coins, each plate being accompanied by a key, and this is a most important part of the book.

Gotama Buddha. By Kenneth J. Saunders. London: Oxford University Press and Calcutta: Association Press, in The Heritage of India Series 1922. Pp. 111.

Professor Saunders has written a biography of the Buddha based on the canonical books of the Theravadin. He has given a description of the life of the Buddha as far as it can be gleaned from the old records, after careful scrutiny. It is of special interest to observe the way in which the author has attempted to reconstruct, as far as possible, a picture of the boyhood of Gotama. It is a real human portrait which he has drawn, much more wholesome and attractive than some of the pictures which have emanated from those who have wanted to make of him a supernatural being even from the beginning. In fact the whole narrative is given a touch of realism and humanism, which makes of it one of the best attempts to sketch the life of the Buddha. Oldenberg's monumental work in German is probably the best biography that has thus far been achieved. It is safe to say that for a biography in brief compass, setting forth the reliable facts in a living way, the present volume is one of the best available in English. The lack of an index is rather an unfortunate omission.

Heber's Indian Journal. A Selection, with an introduction by P. R. Krishnaswami. London and Madras: Oxford University Press, 1923. Pp. xiv. and 221.

This is a good selection from the diary of the late Bishop Reginald Heber who came to India just 100 years ago. Although he lived scarcely three years after coming to this country, it is astonishing how much accurate and valuable information he collected in regard to Indian customs, religions, architecture, and political administration in that short time. His Journals preserve for us the record of his observations in a style which makes them worthy of a lasting place in English

literature. It is of interest to observe that the College Library has this year received a gift of the complete Journals from the Rev. John Craig of Cocanada. The little volume under notice affords the reader an opportunity of getting acquainted with Heber's literary work without the necessity of spending so much time. The selections have been judiciously made, and the Press work is excellent. It ought to make a valuable work for the English non-detailed work of the Intermediate class.

Studies in Tasawwuf. By Khan Sahib Khaja Khan, B.A. Madras: The Hogarth Press, 1923. Pp. xi. and 212.

This is a collection of metaphysical essays dealing with 'the esoteric side of Islam' from the point of view of Sufism. Although each essay is distinct in itself, still there is a common strain running through them—the mysticism of Islam. To the non-Muslim there is no movement more interesting and none more profoundly religious than Sufism, and the author deserves the thanks of all students of this great movement for whom Arabic is a sealed language. One of the most arresting facts is the parallelism between the various ways in which the mystic way, its attainment and its results are depicted by the mystics of different religions. One of the most valuable parts of the book is the glossary of technical terms in Tasawwuf which forms the third appendix.

Mathematical Problem Papers for Indian Colleges. By A. A. Krishnaswamy, M.A., L.T. Mysore: The Progress Bookstall, 1923. Pp. 140. Re 1–4.

The author considers no doubt rightly that our Colleges are apt to fail at the Intermediate stage in imparting a knowledge of mathematics in general, and in encouraging the development of courage and skill in tackling novel problems. This book represents one method of improving matters, and as far as one can judge without the test of experience, a very good one; and the reviewer intends to make that test shortly with the better students.

The recreation problems form a particularly interesting and appropriate set.

E. B. R.

BOOKS RECEIVED

Administration Report of the Madras Presidency for 1921–1922. Madras: Government Press, 1923. Pp. xxi and 266. Rs 5–10.

Administration Report, of the United Provinces of Agra and Oudh, 1921–22. Allahabad: Government Press, 1923. Pp. lxxvii. and 179. Rs 3–8.

Census of India, 1921. Volume xxv. Travancore. Trivandrum: Government Press, 1922. Pp. xiv. 161, and 139, with 8 maps and 34 diagrams.

Leprosy in India. By T. S. Krishnamurthi Iyer. Madras: Tagore and Co. Pp. vii. and 162. As 8. A well written pamphlet setting forth the facts about the leper problem in India, and the necessity for more drastic action in combating the disease.

The Dawn of Light. By Rev. S. B. Lotlikar. Madras: The Christian Literature Society, 1923. Pp. 40. As. 4. The religious autobiography of a Brahman gentleman who became a Christian: the record of a remarkable experience.

An Awful Nemesis. A novelette with a moral by T. K. Gopal Panikar, B.A. Pp. 36. As 6.

NEW EXCHANGE ACKNOWLEDGED

The Indian Antiquary. Edited by Sir Richard Temple; published in Bombay.

College Notes

THE REPORT OF THE COLLEGE COUNCIL FOR 1922 records comparatively few changes in the College staff. After referring to the appointment of Dr. Macphail as successor to Dr. Skinner in the Principalship and of Mr. Mackenzie as successor to Mr. Meston as Bursar, the Council express its sense of loss sustained by the resignation of Mr. Crawford who, while a profound scholar, was able to impart to his subject (Philology) an interest which few could command. Mr. Barnes, who has been acting as temporary Professor of Chemistry for nearly three years, was made permanent in July and the vacancy created by the departure of Mr. Sheriffs in 1919 was filled in October by the appointment of Dr. D. W. Devanesan who is welcomed back to the College 'both because of his academic qualifications, and because of his being a representative of the Indian Christian community.' The report proceeds :—

'In this connection it should be mentioned that the Council have made a new departure with a view to strengthening the representation of Indian Christians in the Senatus. Hitherto the Indian Christians who have joined, or have been invited to join, the professorial staff have been men with European qualifications. The Council has now proposed that another grade should be instituted, to be recruited from amongst the lecturers who have given approved service in the College. These appointments would be made for a period of years and with a fixed salary. The Council has recommended to the Governing Board that in the event of its agreeing to this proposal it should appoint as one of the professors of English Mr. Muliyil, an Indian Christian, who has been on the staff of the College for many years and who by work and character has made for himself a place of recognised influence. Should the Governing Board agree to these proposals the addition of Dr. Devanesan and Mr. Muliyil to the professoriate will bind the College to the Indian Church by a very close tie, while the new scheme will open the way for our graduates to a full share in the counsels, teaching and administration of the College.'

After noting a few other changes in the staff the report expresses sympathy with Mr. Macartney who became so ill that he was unable to be at College for most of the second term. Mr. Macartney has sufficiently regained his health to be able to resume his lectures in the College.

Referring to the financial situation of the College the report says :—

'The expenditure by the council on the School and College for the year amounted to Rs 2,40,734, a sum approximately Rs 16,000 in excess of the previous year's figure. This excess is largely accounted for by the operation of scales of salaries but is also partly due to the withholding of Government Grants in respect of furniture, equipment and library books during the year and to unforeseen repairs to fabric. The Council are gratified to report, however, that despite this large

additional expenditure, there is no actual deficit in the year's working, a result due partly to the slight increase in fee income and to the receipt of the balance of grant withheld in 1921-22. The Home Churches and Missionary Societies gave contributions which realised Rs 58,169; the fees collected amounted in all to Rs 1,33,060; the Government sanctioned grants totalling Rs 53,180; whilst the sum of Rs 2,911 came from miscellaneous sources. The Council desire to express their thanks to the Governing Board and to the Contributing Bodies for increased grants during the year, without which a deficit could scarcely have been avoided. It is a matter for regret, however, that the burden of the additional enhanced grants has been borne by three out of the seven contributing bodies. The Council, while fully recognising the financial difficulties of all Missionary bodies during recent years, cannot but draw attention to the dangers to the stability of a Union College if all the bodies which share in its administration and are responsible for it do not share also in the increased expenditure which the rise in price has rendered inevitable. As a possible remedy the Council would suggest to the Governing Board the advisability of so changing the basis of constitution, that the sum entitling a Church or Society to become a contributing body should be not less than £400 per annum. The Council feel that such a change would obviate many difficulties, and would not only relieve the Governing Board from the necessity of appealing annually to the Societies, but would relieve the College of a great deal of financial embarrassment and anxiety. The Council would also respectfully thank Government for a Teaching Grant of Rs 42,506 for the year 1922-23, and Rs 9,076 balance for the year 1921-22, and a special teaching grant for the School of Rs 1,454. They would express the earnest hope that Government will see its way in the very near future to resume the usual payments of Library and Equipment Grants.

A comparison of the accounts for 1922 with those of the previous years shows that the contribution which the management has made this year to the current expenses of School and College has decreased by approximately Rs 2,000, a fact which is due to the factors mentioned above. This has enabled the Council to allocate a sum of about Rs 3,000 to certain of the unendowed funds which are showing debit balances. At the same time the Council are able to carry forward to 1923 a working balance of Rs 25,000. While the situation in this respect shows distinct improvement on last year, it must be borne in mind that the statement so far deals only with ordinary working expenditure, and takes no account of at least two very serious sources of drain on the finances of the College, viz., College Park Hostel aud the Malabar Christian College. If these are taken into reckoning, the small credit balance on ordinary working expenditure becomes a serious debit balance of approximately Rs 26,000. Were it not therefore for balances accumulated in the endowed funds and Hostel Rent Accounts, the College would be labouring against a somewhat large overdraft.

The Council also would emphasise the fact that they do not regard the balance carried forward to 1923 as at all commensurate with the increased cost of staff, upkeep and administration; when it is further taken into account that the Budget for 1923, passed by the Council, shows an estimated deficit of Rs 6,000, it will be

evident that any thought of expansion in the College is entirely out of the question. By the ordinary operation of scales of salaries during 1923, next year's income will not meet the expenditure, and meanwhile not only has the hope of introducing the scheme to secure reasonable subsistence allowance for Professors to be deferred, but libraries will have to be starved and laboratories remain not fully equipped.

The Council record with great satisfaction that during the year under review the Reformed Church of America has seen its way to become a contributing body, thus strengthening the ties which have always existed between the College and the Mission of that Church in this Presidency, with its Second Grade College at Vellore.

The Council would again, however, earnestly appeal to the Governing Board to make every endeavour to secure the affiliation during 1923 of at least one additional contributing body.

The audited accounts of the College show that of the Unendowed Funds, five still have debit balances. At least two of these will right themselves in the course of the current year, viz., College Park Hostel Rent Account and the New Building Account. As was stated last year the most serious debit balance is that of Rs 20,867-14-11 in connection with the College Park Hostel Building account and this can only be very slowly liquidated by utilising the general funds of the institution as opportunity offers, since there is no hope of any further grants from Government.

During 1922 the College became the recipient of a sum of Rs 200 from an anonymous donor and a sum of Rs 150 from Mr. J. G. Tait, which sums the Council gratefully accepted and allocated as the endowment for two prizes to be awarded in Class III, History Group, and to be called the 'Russell Prizes.' The College also received a legacy of £4,600 from the Trustees of the Estate of the late Dr. Alexander Miller, earmarked for specific purposes, and this sum has been invested on behalf of the various funds specified, in Government paper. From the same source, the Rungiah Chetty Hostel was the recipient of a gift of valuable books for the Hostel Library, and the Natural Science Department of a microscope.

The Council would take this opportunity of expressing their deep sense of the great loss the College has sustained by the death of one who had been such a lifelong friend of the College as Dr. A. Miller had; and who, by his work for it in many ways and by his constant and most generous benefactions, had done so much for its welfare and stability.

Gifts to the Cooper Fund were received from Mr. Maclagan Wedderburn; Mr. A. A. Laing; from two anonymous friends, and from the Crosby Congregational Church, England; and to these generous donors the Council express their sense of obligation.

The thanks of the Council are due to the 'Home News Trust' which continued, as usual, the supply of several periodicals to the College.

The Council would also thank the New College Missionary Society for their very welcome contribution towards the upkeep of the Malabar Christian College, which under the able management of the Rev. F. N. Askwith and a reorganised

staff is making continued progress. The Council regret, however, that the new block of science buildings is not yet a reality and this is a serious bar to the efficiency of the institution. They hope that Government may see its way to sanction the necessary grant to enable these buildings to be proceeded with at an early date.

The Sunday Services in College Church were maintained regularly throughout the College terms and were well attended. Mention was made in the Report for last year of the institution of a special service held once a term on a college day between 10 and 11 o'clock as an act of corporate Christian worship, and intended specially (though not exclusively) for the Christian staff and students. These services have been continued during the year under review and have been so much appreciated that it has been decided to hold them more frequently in the future.'

THE APPOINTMENT OF DR. MACPHAIL as Vice-Chancellor of the Madras University is the most important event since the College closed for summer vacation. Dr. Macphail is the second Principal of the College to be chosen for the Vice-Chancellorship, the first being Dr. Miller who filled that office from 1901–1904. It is a singular coincidence that both Dr. Miller and Dr. Macphail should have been called upon to take the direction of University education in this Presidency at a time of reconstruction. Dr. Miller was at the helm during the introduction of Lord Curzon's much misunderstood University Act of 1904 and Dr. Macphail has the responsibility imposed upon him of organising the Madras University under the reconstituted scheme. The task before the new Vice-Chancellor will demand great educational statesmanship and Dr. Macphail's resourcefulness and rich experience will stand him in good stead at this juncture. The loss sustained by the College by Dr. Macphail's resignation of his place as Principal and Professor is immense. It is not merely his delightful and informing lectures in History which it has been the privilege of generations of sudents to listen to that will be missed. His attractive personality will also be very sadly missed indeed.

WE ARE GLAD TO LEARN that Mr. S. G. Manavalaramanujam, Lecturer in Zoology, has been elected a Fellow of the Zoological Society of London.

ABOUT THE END OF MARCH news was cabled to Madras that the University of Edinburgh had decided to confer the degree of D. Litt. on Rev. A. G. Hogg, M.A., Professor of Mental and Moral Science. Readers of the Magazine are aware that Dr. Hogg delivered the Cunningham Lectures not long ago, and the lectures have now been published in book form by Messrs. T. & T. Clark. It was in recognition of Dr. Hogg's scholarship and originality as disclosed in his thesis, 'Redemption from this World' that the University of Edinburgh conferred a Doctorate on Mr. Hogg. On behalf of the College staff and students, past and present, we convey our congratulations to Dr. Hogg.

SEVERAL FORMER STUDENTS of the College were the recipients of Honours on the birthday of His Majesty the King-Emperor. The most notable of them was Rao Bahadur K. Venkatareddy Naidu, Minister of Development in the Madras Government on whom a knighthood was conferred. Sir K. Venkatareddy Naidu graduated from the College in 1894, and, after serving for a short period

as a teacher in Rajahmundry and Amalapuram, joined the profession of law. He was enrolled as a High Court Vakil in 1900 and soon distinguished himself as one of the leaders of the Rajahmundry bar. Mr. Venkatareddy Naidu has been an ardent politician of the Congress school—the older group that believed in co-operation with the Government and in constitutional procedure. In later years when the non-Brahman movement was organised by the late Dr. T. M. Nair to uplift the non-Brahman masses Mr. Venkatareddy Naidu threw himself into the movement enthusiastically, and at the non-Brahman Confederation that was held in 1917 his eloquence and his grasp of facts were so remarkable that he compelled recognition as one of the leaders of the movement. He was one of the trusted mofussil lieutenants of Dr. Nair, and in 1919 he sailed to England to join Dr. Nair in giving evidence before the Parliamentary Committee on Indian affairs on behalf of the non-Brahmans of this Presidency. On reaching England he found Dr. Nair on his death-bed and the leadership of the deputation fell on Mr. Venkatareddy Naidu. Always equipped with facts and figures his advocacy of the non-Brahman cause impressed the Parliamentary Committee. On his return to India he was appointed for a brief term to the Imperial Legislative Council, and in the first elections under the Reform Act he was returned to the local Councils. When Sir P. Theagaraya Chetty, as the leader of the party with the largest majority was asked by H. E. the Governor to suggest names for the Ministry, Mr. K. Venkatareddy Naidu was easily one of the ministers nominated. As a Congress politician Mr. K. Venkatareddy Naidu made a special study of Indian Finance and of industrial questions and the portfolio of Development was naturally assigned to him. The history of the working of the Reforms has yet to be written, but when it is written it will be found that Mr. K. Venkatareddy Naidu played a not inconsiderable part in making dyarchy a success in the Madras Presidency. Under the administration of Mr. Venkatareddy Naidu the Department of Industries has gathered considerable momentum, and he is responsible, alone of all ministers throughout India, for a State Aid to Industries Act which it is hoped will quicken and facilitate the industrial upbuilding of South India. Mr. Venkatareddy Naidu belongs to the land-holding class, and has been the architect of his fortune in a very real sense. By sheer ability and force of personality he has risen to one of the highest positions in the State, and we have no doubt that more years of service and greater honours are in store for him. Our congratulations to Sir K. Venkatareddy Naidu on this unique honour !

WE REGRET TO RECORD the death from cholera after three days' illness of Mr. K. K. Ganapathi, B.A. at Polibetta in Coorg about the end of May. Mr. Ganapathi graduated from the College in 1921, and was the foremost sportsman of the College from 1916–1921. Mr. Ganapathi was a resident of Caithness Hall where he was noted for straight dealing and for outspokenness. He was a jolly good fellow and it is unfortunate that a promising career like his should have been cut off so suddenly. Our sympathies go towards the members of the bereaved family.

C. L. S. PRESS, MADRAS—1923

DR. MILLER IN JAN. 1923